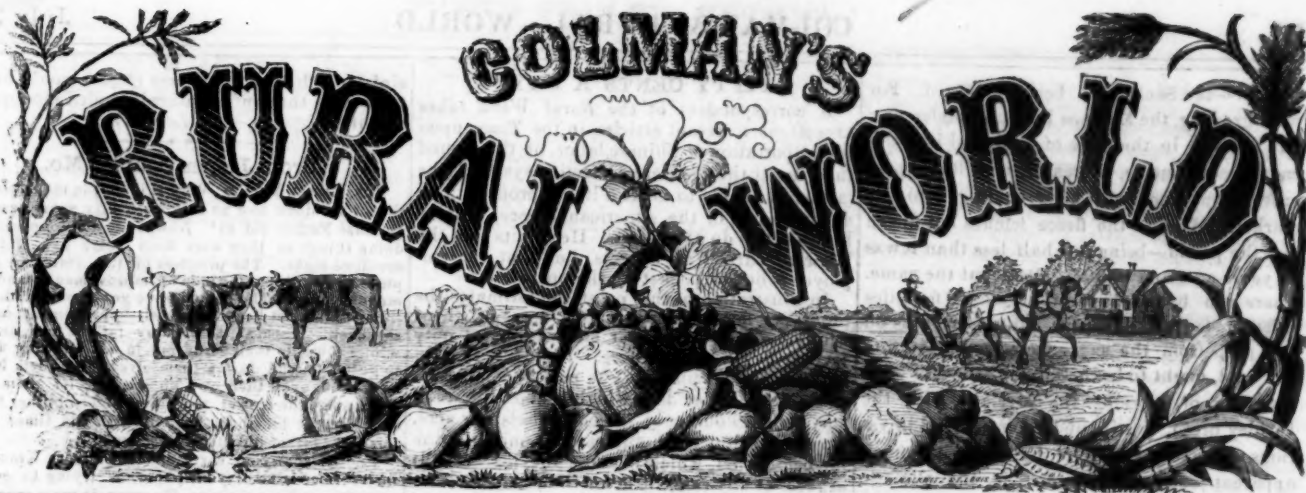


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EUROPEAN CORRESPONDENCE

FROM FRANCE.

PARIS, JUNE 30TH, 1869.

EDS. RURAL WORLD: The "weather and the crops" form, for the moment, the most important topic of interest. Whether the unusually bad weather be owing to "spots on the sun"—as Father Secchi believes—or to some other cause, the results are most disastrous; create great uneasiness, and add to the cost of living. Rain, snow, frosts and a persistent low temperature—have told on the wheat crop, turning it prematurely yellow, sickly and weak. The strong winds have leveled the frail plant as if a roller had passed over the crop—in a few instances the plant has successfully struggled; this is the case with the English variety of wheat, which has a stem like a rose. Rye has held its own; barley is promising, and oats indicate an abundant crop. More sun is required, not only for the cereals, but even for root crops. In the North of France, Colza has suffered much, and the prospects of beets, hops and tobacco, are cheerless indeed. The harvest commences in Algeria in May, and during the first fortnight of June, in the South of France; the end of July is the harvest time in the North. The practice is, generally, to cut when the stems are still slightly green—a plan recommended to us by Pliny. The scythe, apart from a few reaping machines, is the implement generally employed for cutting the grain—with or without a rake, a woman follows arranging the sward for the binder by means of a crooked stick, which gathers in the stray stems. An acre per day is the mean quantity of ground the mower is expected to get over. In Normandy, Picardy and Belgium, the reaping hook is employed—the workmen cutting under three-quarters of an acre per day. In the Centre and West of France, as in Upper and Lower Egypt where the soil is light, the plant is plucked up by the roots and the earth gently shaken off. In some districts in France, the corn is left in swards from four to ten days, but in warm provinces, it is at once made up into the sheaf. The latter is not always bound by its own straw; very often bands are prepared in advance from rye straw, strips from the bark of trees, or the green twigs of

heather broom. The most ordinary band is prepared from rye straw, specially threshed and made into bundles weighing thirty pounds each, and containing material for eighty straps.—Osier bands, if previously soaked in water, will serve three times. Tarrad twine, wire and palm tree cord, are occasionally used. The weight of a sheaf varies from six to forty pounds—the warmer the climate the smaller the sheaf; and with the bands prepared and placed in advance, a woman will bind from 500 to 800 per day. The "Stroks" are generally "hooded," in fact, thatched, with rye straw sheaves, and so left till circumstances arise to thresh or stack. As an evidence of this season's harvest, the Emperor's baker sent a basket of rolls to the Imperial breakfast table, made from new flour, about a week ago; and, according to custom, the same baker forwarded a loaf made from the same flour to the various editors in the city.

Among the distinguished individuals in France who "take" to farming, the Napoleons unquestionably rank first—every member of the Imperial family appears to have his, or her, model farm. In the very Camp of Chalons the Emperor has one, and is famous for its butter.—Last year his Majesty sent a present of a basketful, fresh off the churn, to the Empress. The messenger came to Paris, slept by the way, and in his hurry to change carriages, took the train and was whisked back to the Camp. The butter arrived at Marseilles, then returned to Paris, and, if not melted, may be traveling still. This was the only produce ever exported directly by the Emperor from any of his many farms. The celebrated painter, Rosa Bonheur, farms near Fontainebleau; is the first up and last to bed; and, clothed in a suit of "hodden grey" and enormous gaiters, has an eye here and a hand there. Madame Dudevant, better known as George Sand, lives, almost, in her fields, and throws off a few chapters of a novel while over-seeing her work-people from a headland.

The wool and mutton question is becoming a serious one with French agriculturists. The sheep is at once the animal of the poor as well as of the rich country, and of late, efforts have been directed towards rearing such animals as have a precocity to rapid development for the

butcher—the Southdown being preferred. For wool growing, the Merinos have the preference; but the fall in the price of wool, and its tendency to continue so, is creating a veritable panic; foreign wool will keep coming into the market. Wool in the fleece fetches but fifteen sous the pound—being one half less than it was 25 years ago, and mutton sells about the same. There can be no doubt that where facilities exist for feeding sheep in winter—such as on beet-pulp from the sugar factories—meat, and not wool, ought to be the farmer's object. The propriety of crossing the Merinos with the Dishley breed, is still undergoing a trial in various parts of the Empire, but not with much apparent success. The fact is, the climatic regions of France are so varied, and at the same time well defined, that no Procrustean rule can be laid down. In two respects there is an agreement on the sheep question—to rear animals rapidly, and fatten them off quickly; and two distinct parties undertake these duties, the breeder passing his "lean kine" over to the holder of fat and quiet pasture lands, the latter supplying the butcher, who always advertises over the carcass in his shop the person who prepared it for the slaughter house. Baron Rothschild's sheep are always so treated; by-and-by it will come to having a "trade-mark."

One word again, on the crossing of Merinos: The experience is decidedly in favor of improving them by themselves. At Breslau, Lord Walsingham made not only a good thing by his Southdowns, but created something like a sensation; some of the Bohemian agriculturists paid as high as 1250 francs for rams. In Pomerania, this breed of sheep has given excellent results, especially when crossed with the *negretis*. Speculators at Stettin can afford to export them to Leith and to the London market, and pocket a good profit. The same parties purpose shipping largely, horned cattle and pigs. The single house of Koopman, at Hamburg, exports annually 80,000 pigs. Cincinnati had better look to its laurels.

With the view of reaping for themselves all the intermediary profits, some farmers have formed a co-operative butchery—the arrangement is said to work well, but the regular professionals do not consider their craft to be yet in danger.

The venders of artificial manures in France, as well as everywhere on the Continent—Madrid especially—cry up their wares, like the proprietors of patent medicines. To make a desert grow and blossom like the rose is but a small task with some of them. A gentleman residing some sixty miles outside Paris has offered to place 250 acres of his farm at the disposition of the manufacturers of portable manures; the soil is above the average quality and in good condition. He will only ask them to supply the stuff—he will sow and cultivate, pay for a faithful registration of the experiments, and will divide one-half of the profits with the manufacturer. Up to the present he still "pauses for a reply."

[Conclusion next week.]

The Australian wool-growers, it is stated, have become alarmed at the competition from South America, where, it is reported, 70,000,000 sheep are shorn every year, and the exports of wool amount to 230,000,000 pounds.

FIFTY CENTS A DAY.

A correspondent of the *Rural World* takes exceptions to recent articles in the *Times* upon the importation of Chinese labor, on the ground that, under the "present protective system," the farmer is unable to make a living profit so long as the wages of the American laborer rule as high as they do at present. He admits that the laborer "earns" all he gets, but that the employer is out of pocket by the operation.

In illustration of this point, he estimates the profit per acre of one hundred acres of wheat which he now has under cultivation, at only seventy-five cents per acre. It is true, that in making his calculations, he puts the laborer's wages at \$3.50 per day, which is above an average, and reckons only fifteen bushels per acre, which is a slim yield, and sales at only one dollar per bushel, which is under the market. It argues, at any rate, little for the productiveness of the soil or the quality of the grain.

Allowing him the full benefit of the argument, however, is it a fair deduction that the remedy of his grievances should come out of the "flesh and blood" of his hired laborers?

We are aware that the agricultural interests of the West, as well as many others, necessarily suffer from the evils of a high protective system, but it looks like applying the remedy at the wrong end of the difficulty if the day-laborer has got to be degraded and oppressed in order to obviate the hardships suffered by the employer through the errors of protective legislation.

If, as the writer states, he is now forced to pay thirty-three cents for coffee and twenty cents for sugar, what becomes of the laborer's sugar and coffee, when by the competition of John Chinaman he is compelled to receive only "twenty-five to fifty cents a day," instead of two to two and a half dollars a day, which he now gets and earns, or three dollars and fifty cents, as the correspondent intimates he has had to pay.

If there is any remedy in law or legislation for the farmer who raises only fifteen bushels of wheat to the acre, harvests it at three dollars and a half to the hand per day, and sells it at a dollar a bushel; having at the same time to pay thirty-three cents for his coffee and twenty cents for his sugar, why does he not go to the root of the evil and apply the cure at the source of the disease? He certainly cannot build himself permanently up upon the impoverishment of men who have to work by the day for their living.

If the domination of any political party or political policy, has entailed this condition of things upon the farming interests, as the writer leads us to infer, although as a rule, the Western wheat-growers are the most independent and well-to-do of all our citizens, it would seem the better course for people thus aggrieved to direct their combined energies and influence rather to the reform of an injurious system which burdens farmer and farm hand alike, than patiently submitting to an indirectly fostering the wrong, to seek compensation in a still further aggravation of the poor laborer's condition.

If the Chinaman can be had at twenty-five or fifty cents a day—which he cannot be, after he has been long in the country—we do not blame our friend, who makes out of his farm only six bits an acre, for employing him. But what is to become of his more impecunious neighbor who has no acres to cultivate with even cheap help, and only takes advantage of harvest-time to make two or three dollars a day extra, for two or three weeks in the season, in order to eke out the slim pittance of the balance of the year?

In such a contingency he must inevitably go to the wall; or, giving up his little tea, sugar and coffee take to rice, wear a pig-tail, and transform himself at once into a Chinaman. In other words, the effect of a labor system, predicated upon a scale of wages incommensurate with the rational, legitimate wants of intelligent and civilized workmen must eventuate in disaster, if it can be instituted at all. Under its

sinister influence the poorer classes would have to go down that an unnatural landed monopoly might be kept up.—*St. Louis Times*.

From Jasper County, Mo.

EDS. RURAL WORLD: Why is it that in many places things are done now as they were fifty years ago?—Because Father did so! Now, I am not opposed to doing things as they were done years ago, if they are done right. The progress of the American people is, Onward, in all kinds of improvements, and we must keep up. The people have got to part with old times—all must keep pace with improvement, or be set back. I think that many fathers are acting wrong towards their children, in not allowing them to go ahead and do for themselves. Let them learn to depend upon their own knowledge; let them use the reaper, the mower, the plow, and all other farm implements; let them keep up with the times and not do as father did fifty years ago.

I notice that your correspondent "Korn Kracker" in a former issue of your paper, is trying to get at something about fences. He says it costs twice as much to fence against horses and cattle as against hogs. Now let us look at this matter: His horse and cattle fence would be as good if it was a four-foot rail fence (Shanghai, as he calls it.) stacked, as his eight-rail fence is, if it were not for that thousand dollars' worth of hogs running about. He has got to fence against them. He says the prairies are covered with breachy cattle and horses that are constantly preying on wheat and corn fields. He speaks of a six-rail fence, and says that he drove eleven head out of the field. Six rails would be a very low fence. He appears to be particularly severe against the mule raiser's stock—the damage it has done—and winds up by saying that suits would have to be commenced against a dozen men—from which a man would infer that there were a dozen mule raisers there thickly settled about Carthage. He speaks of a lawful fence (which I believe is four feet six inches) and then of one four feet high. He speaks of railroads giving us a market for our produce—I am sure produce is high enough now: flour, \$6; corn, \$1 to \$1.25.

Now, to sum up the matter, we have a good law in regard to breachy stock, where there is a lawful fence—but the fact is, that men with small means cannot fence a farm with a lawful hog-tight fence—it costs too much for me to fence against my neighbor's hogs. I don't want to figure the difference in fences—but will say, give us a hog law. We can't have good hogs without a hog law, for the reason that our hogs are breeding in-and-in, and soon will be good for nothing.

I have seen hogs here that had a disease called the twist head. Hogs rooting in the ground for something to eat strain the muscles of their neck, and the head twists sideways—the only remedy is a hog-law.

Let us give the man who has a little farm a chance to live: let us give him a hog law.

Now about my bees. I came here from the far North to raise fruit and live more easy, on account of the mild climate. I got me a few swarms of bees last year. When the first swarm came out, myself and family ran out with tin pans, frying pans, revolver, dog, horn and bell, and we all attacked the poor, harmless, little bees in the front and rear with all the noise possible. Why? Because father did so! Now what was the result? Every swarm left us and took to the woods—I don't blame them. Some said hang a ten cent silver piece in the hive—that was out of the question—I had'n't got it. This year I have had fifteen swarms come out, and but one left. Why the difference this year from last? There has not been any noise made to make them settle. My wife would go out and set down among them, and they would all settle close to the ground, and there has not been a person stung in hiving this year.

I, this day tried the plan of removing bees from one hive to another, as recommended by one of your many writers on bees. I layed the old elm gum in a room; after removing the furniture, I tried to smoke them first; that would not do. I got the ax and split the gum—and you better believe I thought I was gone up. The bees came all out about me. I removed the honey into pans, and pushed what bees were on the bench into the hive. By this time the bees were crawling about the room, and on the ceiling and windows. I tried to get them in, but could not. For a few moments I was down on your correspondent's plan—but good reasoning came to my relief. I darkened the windows, shut the door and left them for half an hour, then went back, and nearly every bee that could crawl was in the hive. After all my trouble, I did not get stung. I placed them on the stand, and they are doing fine. I shall adopt his plan hereafter. I think they could be removed outside, early in the morning, as easily as in a room.

N. M. SMITH, July 7th.

THE TRUE ARMY-WORM.

(Leucania unipunctata, Haworth.)

Editors American Entomologist: I inclose a match-box with grass and two worms, which we think are Army-worms. They are here in myriads destroying the grass. Destroyed a hundred acres of blue grass meadow in five days, and are now advancing on me. What are they and their habits?

Carbolic acid (one part acid twenty parts water) kills them, if they get a good drench with it, but is too expensive at that rate. They will cross a trail of it without injury, though they evidently dislike the smell. Have sent to town for coal tar to see if they will cross it when the ground is soaked with it. The advancing column is a half mile wide.

The hogs are very fond of them; will not notice corn when they can get Army-worms, but we have more of the latter than they can dispose of. A. E. TRABUE, Hannibal, Mo. June 8.

Since the above communication was received from Mr. Trabue, we visited Hannibal and vicinity, and we found that the Army-worm was even more numerous around New London, Mo., and especially on Mr. A. MoPike's farm, which is five miles north of that town. We have also heard of its appearance in other parts of Missouri, especially in Cooper and St. Louis counties, as well as in St. Clair county, and in Coles and Franklin counties, in Illinois—and we therefore take this opportunity of giving a condensed account of it, by which it may the more easily be distinguished from the Southern Cotton Army-worm, which formed the subject of our leading article. It will be well remembered by the people of the West, and especially of Illinois and Missouri, that the Army-worm was exceedingly abundant and injurious in the year 1861. Since that time it has never appeared so generally over such a vast extent of country, though in 1865 it appeared in considerable numbers around St. Joseph, in Missouri, and in 1866 did some damage near Quincy, Ill., as we learned from the Quincy Whig. But in most of the localities where it so abounded in 1861 it has scarcely been heard of since, and the unobserving resident in such localities would naturally conclude that it had vanished from the face of the country, and would be not a little puzzled to divine from whence it so suddenly came, in such immense armies, the present summer.

The truth of the matter is, that there are a few Army-worms in some part or other of the country every year, and we have for the past four or five years captured one or more specimens of the moth every fall. The worms very possibly occur by preference, as has been suggested by Dr. Fitch, in low, swampy lands, where they would be little likely to be noticed. Occasionally circumstances are favorable to their multiplication, and whenever such is the case, their enormous fecundity enables them to appear as if by magic. The eggs hatch during the early part of May, in the latitude of south Illinois and Missouri, and the young worms may feed by millions in a meadow without attracting attention; but, when they have become nearly full grown and have stripped bare the fields in which they were born, they are forced from necessity to travel in search of fresh fields, and it is at such times that they first attract general attention. A curious instinct leads them to travel in vast armies; and, as they are now exceedingly voracious—devouring more during the last three or four days of their worm-life than they had done during the whole of their previous existence—they are very apt to strip the leaves from every blade of grass or grain on their way. On the other hand, they are attacked by at least five different parasites; and, when we understand how persistent these last are in their attacks, and how thoroughly they accomplish their murderous work, we cease to wonder at the almost total annihilation of the Army-worm, the year following its appearance in such

hosts. Furthermore, there may be influences at work, other than parasitic, which cause an increase or decrease in the numbers of this pest. It is a significant fact, that almost all great Army-worm years have been unusually wet, with the preceding year unusually dry, as Dr. Fitch has proved by record. The present year, wherever they have so far appeared, forms no exception, for the summer of 1868 was unusually dry and hot while the present year has been decidedly wet.

The Army-worm, like all other insects, hatches from an egg, and this egg is evidently deposited by the parent moth at the base of perennial grass stalks. The worm varies but little from the time it hatches to the time when it is full grown. Some specimens are a shade darker than others, but on many thousands of specimens examined, we have found the markings very uniform, as represented in the annexed cut (Fig. 152). When full



Colors—Dull black, white, dull yellow and pink.

fed, which is generally about four weeks after hatching, it descends into the ground where it forms an oval chamber and changes to a shiny, mahogany-colored chrysalis (Fig. 153). Sometimes it scarcely penetrates beneath the any-brown surface, but forms a rude cocoon under what dry herbage there happens to be on the ground. Thus, the worms vanish from sight very suddenly, and this sudden disappearance is as mysterious to those who have no knowledge of natural history, as was their abrupt advent. We doubt very much if a single one, of the hosts which so recently animated the meadows, can be found in any of the localities above mentioned, by the time this reaches our readers.

After remaining in the chrysalis state about two weeks, the perfect moth appears. The general color of the moth is light, reddish brown, or fawn color, and it is principally characterized by, and receives its name from, a white spot near the centre of its fore-wings, there being also a dusky, oblique line, running inwardly from their tips. The accompanying illustration



Colors—Light, reddish-brown, white not withstanding the colors of the two moths are so nearly alike.

In the fourth volume of the "Transactions of the Illinois State Agricultural Society" (1860), will be found a very complete account by the Senior Editor, of the Army-worm, with four of its parasites, to which account we refer those of our readers who desire to learn more of this singular insect.

During our visit to Hannibal we ascertained that the worms originated in a large 100-acre field of very rich blue grass, belonging to Mr. W. R. Flowerree. This gentleman makes a business of fattening cattle, and intended feeding off the grass in the fall; but that same field had neither been pastured nor plowed the year before, which, in our minds, was the very reason why the worms originated there. The Army-worm, like our cut-worms and almost all the insects of the great group of Owlet moths (Noctua family) to which it belongs, is single brooded; and, though a few of the pupae may remain in the

ground through the winter and not issue as moths till the following spring, yet the great bulk of them issue, as above stated, in about a fortnight after becoming pupae, or, during the month of July. These moths pair and the female deposits her eggs where nature teaches her that those eggs will have a chance to live and hatch, namely: at the base of perennial grass stalks, or on the stubble left by the mower. Consequently, you effectually destroy the eggs and thus check the further multiplication of this insect, either by burning your meadow stubble in the dead of winter or by plowing it under in the fall. It were useless to enumerate the many facts which distinctly lead us to this conclusion; suffice it to say that they are numerous, and that the one mentioned above is corroborative.

Mr. Trabue has large meadows, separated only by a road from the blue grass field of Mr. Flowerree, and he thought he could keep out the worms by simply making a V-shaped ditch; believing that they could not crawl over so long as the earth crumbled. The first evening after it was dug, this ditch seemed to be effectual, and the bottom was covered with one seething, twisting mass of worms—but a heavy rain came on in the night following, after which they crossed without difficulty. Mr. Jas. Dimmitt, however, who had 80 acres of wheat adjoining the fatal blue grass field, effectually protected it by surrounding it with a ditch which had the inner side slanting under, towards the field it was intended to protect. It was indeed most fortunate that Mr. Dimmitt had hit upon the true method in the beginning, for his wheat was yet in that soft state in which even the ear would have been devoured; and friend Trabue was not long in profiting by his example. We noticed that though the worms would nibble at clover, they did not relish it, and always passed it by untouched, whenever blue grass or Timothy were at hand. A large gang of hogs were making commendatory efforts to gobble up all those worms that were crossing the road in a particular place; but they utterly failed to check the onward march of this (to them) luscious food.

To one who has never before seen this insect in its might, the sight of the myriads as they return thwarted in their endeavors to cross, or of the living, moving and twisting mass, which sometimes fills the ditch to the depth of several inches—is truly interesting. We were much surprised to find that, wherever we went, fully nine worms out of every ten had, upon the thoracic segments, just behind the head, from one to four minute, narrow, oval, white eggs, about 0.04 long, attached firmly to the skin; and our companions were as much surprised when we informed them that these were the eggs of a parasite, and that every one of the worms which had such eggs attached to them, would eventually succumb to one of the maggots these eggs produced. The large two winged parasitic flies which deposited these eggs, were wonderfully numerous, buzzing around us and about the worms like so many bees, and the moment we caught one, we recognized it as the Red-tailed Tachina Fly (*Exorista militaris*, Walsh), which in 1861 was first reared and described by the Senior Editor. As this fly is one of the most abundant Army-worm parasites, and, consequently one of its most effectual checks, we represent it at Figure 155. There have been men foolish enough in the past to believe that, because this fly issued from the body of the Army-worm, therefore, it must be the real mother insect, and should



Colors—Gray, black and brick-red.

be destroyed! No reader of the *Entomologist* will be apt to make such a grave blunder—for they will know when they observe this large, buzzing fly, that it is doing them good service. This fly is of a dark gray color, with a satiny lustre, and the last abdominal joint is brick-red or reddish-yellow. When we recollect that, besides this *Tachina* Fly, which had provided for the destruction of nine-tenths of the worms, there are five other distinct parasites which are known to attack them, by depositing their eggs in the body of their victim, where these eggs cannot be seen—we shall have no cause to wonder if there should be no vestige of the Army-worm around Hannibal next year.

The Fox sometimes proves to be the Friend.—We have heard of the Army-worm sometimes passing through a wheat field when the wheat was nearly ripe, and doing good service by devouring all the chaff and leaving untouched the wheat; but, the following item from Collinsville, Illinois, which we clip from the *Missouri Democrat*, contains still more startling facts:

"HARVEST AND CROPS.—Notwithstanding the unfavorable weather, many farmers have commenced the wheat harvest. The yield in this immediate vicinity will be superabundant. Some fields were struck with rust a few days since, but the Army-worm making its appearance simultaneously, stripped the straw entirely bare of blades and saved the berry from injury. These disgusting pests have saved thousands of dollars to farmers in this neighborhood. A few fields of corn and grass have been partially destroyed, but by ditching around fields, the worms' ravages have been confined within comparatively narrow limits."

We are indebted, for the foregoing article, to the *American Entomologist*, of the present month.

HOGS INCLOSED.

COL. N. J. COLMAN: There seems to be some anxiety on the part of a portion of the inhabitants of this State, to have a "Hog Law," but no one seems to make any suggestions as to how so desirable an end is to be accomplished.

Let me suggest that you make a call through the columns of the *Rural World* for a sufficient sum to defray the expenses of the necessary preliminary steps, and all who are in favor of such a law will no doubt respond. Then have a petition prepared and printed for circulation, sending one or two copies to each subscriber for signatures; have them all returned to your office, and at the proper time presented to the Legislature. You can no doubt approximate nearly to the cost of doing as I suggest, and make a call accordingly, leaving a margin sufficient to pay you for your trouble.

All who are in favor of such a law will no doubt be glad to pay something to secure it.

The above was not intended for publication, but as there seems to be considerable interest felt on the subject, we give it publicity. We think a law can be passed by the Legislature with less trouble—not, perhaps, at the next session of the Legislature, but at the succeeding session; for then we shall have new members. The trouble now is, the members lack backbone. They fear to vote for such a law—because they are afraid they may offend somebody and lose votes. Though if farmers would speak to their representatives and urge the necessity of such a law, it could easily be passed. If not, at the next election, see that such representatives are nominated as will favor such a law if elected. Representatives will generally favor anything that is popular, and they must be made to feel that it is popular. In the older and more thickly settled portions of the State, the necessity of such a law is felt; but in the sparsely

settled portions of the State such a law would not be popular, for the settlers want their hogs and other stock to subsist on the range. Hogs are a great nuisance when running at large, and particularly some hogs of the Alligator breed. Scarcely any fence will stop them.—They do immense damage to various crops, and when they get a taste it is almost impossible to stop their incursions, unless with a bullet. The pigs and shoats will crawl through very small cracks and holes, and vex and annoy the honest tiller of the soil wonderfully. They are mean brutes to get along with, and we think they ought to be confined within proper metes and bounds. Many of the older States have passed such laws, compelling the owners, not only of hogs, but of all kinds of stock, to keep them inclosed.

TURNIPS.

Although most turnips contain about 80 per cent. of water, and really very little nutrition, yet they are a valuable adjunct to the table, and when well prepared are not "bad to take."

They are of great value as winter feed for stock, especially when such stock is mostly confined to hay and dry feed. Every farmer ought to have a large patch, and his cellar well filled in late autumn.

There is also some choice as to quality. The *Russia* or *Swedish* turnip, is the richest and the best both for table and stock. The *Strap-leaved*, *Purple Top*, *Snowball* and *Green Globe*, are varieties that we have grown, and which we class only second to the first named.

Most farmers sow turnips too thick, which, if seed is plenty, is not so bad a fault, *provided the plants are well thinned out* and left only thick enough to fully develop the roots.

The turnip requires a rich, deep soil, well pulverized; and, if sown in drills so as to allow of cultivation, all the better. Especially do the *Russia* and *Swedish* yield a much larger crop when cultivated and hoed a time or two.

A great deal of land has been laying idle up to now, on account of wet, which may yet yield a fine crop of turnips, if well prepared *now* or very soon.

If fear of too thick seeding is entertained, the seed may be mixed with common sand and sown with two fingers and the thumb; a good garden drill is undoubtedly better.

Near this city, and for the St. Louis market, turnips are a profitable crop to raise, as they do not require much labor. If sold at the time of gathering, they may not bring large prices, but during winter and spring they generally sell well.

The Weather and Crops.

From Benton County, Mo.

COL. COLMAN: The prospects for good crops in this section of Missouri, are better than usual. The wheat crop is ready for the sickle, and, considering the extremely unfavorable winter and the large breadth of land sown, the amount harvested will be fully up to last year, and in fact largely in excess.

The corn crop which, a few days ago, was so unpromising, is now being got clear of weeds, and promises a better crop than usual.

GRIST MILL AND MECHANICS WANTED.

This section of Missouri is rapidly improving, thousands of acres of raw prairie having been inclosed and plowed this season. The farmers are suffering from the need of a flouring mill. No better investment can be made, and no better location found for such an investment than this. A flouring mill here, would command the custom for an area of ten or fifteen miles in three directions, the nearest mill being at Warsaw, ten miles south, and none on the east, north or west, for fifteen or twenty miles.

Good, attentive, industrious mechanics—Blacksmiths, Cabinet Makers, Shoemakers and Wagon Makers, would find here excellent openings, and could not fail to do exceedingly well.

If any of your readers, have a desire to set up a Grist Mill, or engage in any of the above employments, they will meet a warm and hearty support here. For particulars and further information, inquire of Dr. J. B. Colegrove, or F. W. Keseman & Co. Lincoln, Benton Co., Mo., July 1.

From Daviess County, Mo.

COL. COLMAN: Inclosed, I send you two dollars, to renew my subscription to your excellent paper. It is a welcome weekly visitor to our family, and I think every farmer in the West would find it so if he were to order it—not only be interesting but repay the outlay tenfold, if not one hundred.

Daviess county, of course, is sharing in the widespread calamity this season of continued heavy falls of water, almost without a precedent to the oldest inhabitants of the country. The consequence is, great injury to the crops generally already; and entire destruction must soon ensue unless there is a cessation of rain and damp weather, so that the wheat yet standing can be cut—that which is in the shock saved from sprouting—and stacked; and corn, which is unusually small for the season, cultivated and the grass subdued with which it is over-run.

Emigration to our great State has been large recently—and still they come, even from Maine, on down, securing locations as near our cities and towns and railroads as possible, until such desirable situations are getting scarce—but come on, you may do first-rate yet.

I notice from the "*Rural World*" that several of your subscribers desire to come to Missouri; occasionally make inquiries of you as to where they might probably find good locations—desirable homes in every respect; and you have requested your readers who know of land that would probably suit, to give information of it. For the benefit of persons having a strong inclination to come to Missouri, and desiring to find good land of which to make farms, improve according to their taste, and make little earthly paradises of if they choose—stock farms where they can raise stock, make butter and cheese, and find a good market—I would say, they doubtless can be suited by getting off the cars at the city of Chillicothe on the Hannibal and St. Joe Railroad, and riding south of that place about eleven miles, where they will find the east half of section 22.56.23, containing 320 acres of rich prairie, well adapted to their wants; well watered; sufficiently undulating for drainage, meadow and upland. A farmer is wanted by the country right there, who can turn out a good article of cheese and butter. Mr. C. T. Parsons, who joins this tract, will show it, and with Mr. J. H. Ware, of Chillicothe, will give particulars. The very good timber to go with this land is about three and a half miles distant over a good road and adjoining Mr. A. T. Patterson, who will show it. There are 40 acres, half rich prairie and half timber, two miles west of the half section, where fruit and a vineyard would do well, and joins Mr. Wm. Mayberry, who will show it. T., Altavista, Mo., July 17.

The Apiary.

ALSIKE CLOVER.

MR. EDITOR: I noticed in the *Rural World* for July 17th, an inquiry about Alsike clover. We have cultivated it for several years, and are pleased with it. As it commences blossoming about the same time with the white, we have a good opportunity of seeing which the bees prefer; and though we have more than a hundred hives of Italian bees, and our pastures literally covered with white clover—our four-acre lot of Alsike was swarming with bees, while but few could be seen on the white. I am satisfied there is a great deal of honey in the blossoms of the Alsike. One of our swarms that was hived the 22d of last May has stored fifty-four pounds of honey in boxes, which we have taken, while there is full forty pounds in boxes still on the hive. It grows about as rank as the red. I have measured stalks this year that were four feet in length, while the general average is, from two to three. This season it has ceased blossoming, and is maturing its seed—perhaps a week sooner than the white. We have not as yet saved any seed, but have depended on others for it. We design saving the seed this season, providing we have dry weather in time. Not having a clover huller, we shall run it through our threshing machine; it is

said by those who have raised it, that the seed comes out of the hull easier than the red. Where there is but little white clover, there is no doubt that it would pay well to sow largely of Alsike for bees, as it is also nearly, if not quite, equal to the red for stock. L. C. F., Springfield, Ill.

The Dairy.

Cheese Making in a Small Way.

Sometimes the farmer who keeps only a few cows to supply his family with milk and butter, would like also to make a few cheeses for family use. He does not care to make cheese to sell, and therefore hardly feels able to purchase cheese apparatus and fit up a dairy-house after the most approved models.

Let us see how cheaply we can arrange for a primitive dairy. If nothing better is at hand a common wash-tub, clean and sweet, will answer the purpose for setting the milk and working the curds.

A hoop must be had from the cooper. Let it be ten inches in diameter, top and bottom, by twelve inches high and fitted with a follower.—A very good press may be made in a few hours from a twelve-foot plank and some pieces of scantling. About a foot from each end of the plank set up two short pieces of scantling four and one-half inches apart. Fasten them firmly to the plank with bolts or pins. The lever may be a joist four by four, or four by six, and fourteen feet long. One end is to be secured by a pin passing through the uprights at one end of the plank, and it is to move freely up and down between the uprights at the other end. A weight hung at the end of the lever and you have a press that will do good service.

The hoop is placed near the stationery end of the press-beam and blocks put upon the follower and the press-beam let down upon them, and in this way the cheese is pressed.

A long, thin, wooden knife, will do for cutting the curds. Now a gallon of good milk (wine measure) will make nearly a pound of cheese.

Your milk having been placed in the tub and the number of gallons known, a portion may be taken out and heated in pans over a common stove. The pan holding the milk should be set in another pan holding water, or over a kettle with water in it, so as not to scorch or burn the milk in the pan. Heat the milk and pour into the tub until the mass indicates a temperature by the thermometer of 85°. Then add a quantity of rennet (which has been previously prepared by steeping the dry skins or rennet in water,) sufficient to coagulate the milk, say in forty to fifty minutes. Now put your finger into the curd, raise it slowly and if it readily splits apart, the mass is ready to cut into blocks with the curd knife. After cutting into checks two inches square, let it remain at rest ten to fifteen minutes for the whey to form. Then carefully break with the hands by lifting up the curds very gently, and when the mass has been gone over let it rest for ten minutes for the curd to subside. Now dip off a portion of the whey into the pans and heat on the stove in the same manner that the milk was warmed. In the meantime continue breaking the curd by gently lifting until the particles of curd are about the size of small chestnuts or large beans. Then pour in the warm whey and continue heating and adding the warm whey until the mass indicates a temperature of 98°.

Do not be in a hurry, but take things leisurely, continuing the breaking or stirring the curds while heat is being applied. It may now be left at rest for half an hour and then stirred so the particles will not adhere, and this treatment continued until the curd has a firm consistency. Take up a handful and press it together in the hand, and if on opening the hand it readily falls to pieces, it is about ready for draining. Throw a cloth strainer over the tub and dip off the

whey down to the curd. Then put the strainer on a willow clothes-basket and dip the curd into it to drain. It may now be broken up with the hands and when pretty dry returned to the tub for salting. Salt at the rate of four and one-half ounces of salt to ten pounds curd; mix it thoroughly and put to press. After remaining from two to four hours in press, turn and put to press again leaving it under pressure until next morning, when it may be removed to the shelf.—Small cheeses need not be bandaged; they should be rubbed over with a little fresh butter melted and applied warm, or with oil made from the cream that rises from the whey.—X. A. Willard, in *Western Rural*.

THREE CALVES.—Col. D. M. Bowen, of Franklin County, Ky., has a cow that recently gave birth to three calves, one male and two females, all large, healthy and doing well.

Horse Department.

HORSE GOSSIP.

Fast driving seems to be gaining favor with the Eastern people. Many predicted that fast trotting horses would become so numerous that the fashionable world would want a change, and adopt some other mode of enjoyment on the road different from riding in the wagon. This is a mistake—the wagon has filled the bill in all time past—and the horse (the fast trotter) although he has lost his novelty, he is no less attractive on that account. He can't go out of fashion even if he should go much faster than he does at present. A ride in the wagon can't be superseded by a ride in any other way.—Fashionable people may wish for a change when trotting horses become so numerous that common people can own them—but no change is possible. A substitute can be found for hats and bonnets, and nobility can change the cut of their robes whenever commonality steals their pattern—but there is a fascination about a fine fleet horse that kicks fashion out of the ring even to mix with the common herd. It can't be helped! Fleetness is admired in everything. It is part of our nature to love the swift. The steamboat that makes the fastest time, is regarded with a feeling of sacredness that the slow tug cannot produce. The nimble-footed deer is stroked and caressed by female hands because of its fleetness. Men may say what they please; they may preach whatever doctrine they will; but there is no help for our devotion to the fleet-footed and swift. The fast horse will never get out of date, and the prices he will bring, though they may not be so high in the future, there is no chance for them to be very low. It will always pay to sell a fast trotter, if it does not pay to keep one; and those breeding and rearing fast movers will never be at a loss for purchasers at good prices. In the East, where the monied capital of the country seems destined to be bulked, fast trotters for driving on the road are more in demand than ever, and a very great increase in the number of fast driving horses is visible about all the large cities of that section. Many thousands of dollars have been paid in Kentucky within the last few months, for trotting stock to go to New York and Boston. The trotting races have also been patronized more liberally by the people than at any time heretofore. The spirit for fast

horses will always be at high tide. It cannot go down until man's nature is changed, and fleetness gets below par, and sloth goes at a premium. There is some danger in fast driving—but who cares. Steamboats kill a few, railroads ditto, and fast horses cause their share of broken shins and crippled shoulders—but the races on the road and on the course will be indulged in at whatever cost; and, as the roads and avenues are improved for driving, the trotting horse will be prized more highly than ever. The English race horse and the four-mile runs will always afford enjoyment to those who see them. The excitement of one of these races is relished more and more, the oftener they are seen, and the four-mile courser whose fleetness carries him in the front, is looked upon with all the admiration and fondness human can possibly give to animal. GOSSIPER.

Horses in Battle.

The extent to which a charger can apprehend the perils of a battle-field may be easily underrated by one who confines his observation to horses still carrying their riders; for, as long as a troop horse in action feels the weight and hand of a master, his deep trust in man keeps him seemingly free from great terror, and he goes through the fight, unless wounded, as though it were a field day at home; but the moment that death or a disabling wound deprives him of his rider he seems all at once to learn what a battle is—to perceive its real dangers with the clearness of a human being, and to be agonized with horror of the fate he may incur for want of a hand to guide him.

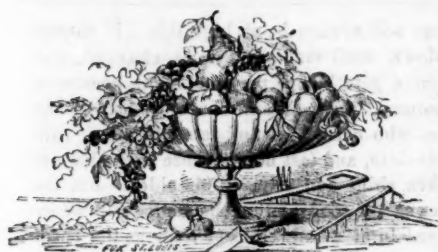
Careless of the mere thunders of guns, he shows plainly enough that he more or less knows the dread accent that is used by missiles of war whilst cutting their way through the air, for as often as these sounds disclose to him the near passage of bullet or round shot, he shrinks and cringes. His eyeballs protrude. Wild with fright, he still does not most commonly gallop home into camp. His instinct seems rather to tell him that what safety, if any, there is for him must be found in the ranks; and he rushes at the first squadron he can find, urging piteously, yet with violence, that he too by right is a troop horse—that he too is willing to charge, but not to be left behind—that he must and he will "fall in." Sometimes a riderless charger, thus bent on aligning with his fellows, will not be content to range himself on the flank of the line, but dart at some point in the squadron which he seemingly judges to be his own rightful place, and strive to force himself in.

Riding, as is usual for the commander of a regiment to do, some way in advance of his regiment, Lord George Paget was especially tormented and pressed by the riderless horses which chose to turn round and align with him. At one time there were three or four of these horses advancing close abreast of him on one side, and as many as five on the other. Impelled by terror, by gregarious instinct, and by their habit of ranging in line, they "closed" in upon Lord George so as to besmear his overalls with blood from the gory flanks of the nearest intruders, and oblige him to use his sword.—*Kinglake's Invasion of the Crimea, Vol. IV.*

Answers to Correspondents.

BOOK ON FRUIT CULTURE.—Eds. Rural World: Please give me the name of some good book on fruit culture, that is thoroughly practical, and gives information on the propagation of all kinds of fruit, and oblige J. S.

REPLY.—The "American Fruit Culturist" is the work you want. It is thoroughly practical, entirely reliable, and gives particular instruction on the propagation of all kinds of fruit. It is for sale at the "Rural World" office at \$3, and mailed free of postage to any one sending that amount.



HORTICULTURAL.

DEEP PLANTING OF TREES.

The importance of the depth at which trees should be planted, cannot be over-rated by the planter.

There is a tendency to the accumulation of the soil about the roots of the tree in plowing the ground. If the trees are worked as they should be, the hoe or spade will remove this mound and put it in its proper position. But, in very many cases, even in what are thought to be well-managed orchards, the soil at the stems of the trees rises, and the centre of the spaces becomes a furrow.

This season we have seen the trees die without any apparent cause (as has often been seen before), and a very careful examination revealed no insect action on stem or root—but there was, in every instance, a plainly-marked band of dead bark, where the wet, heated soil, acted like a poultice.

After the vital action ceases, fungoid growths appear on both stem and roots; but it appears to our mind that the development of the spores of fungus never takes place till after constitutional derangement and impaired vital action takes place, and death ensues as the climax.

In the living, active, healthy tissue, there is no place for the growth of fungus.

It will be well, then, to watch for the first symptoms of diseased action; and this season we will find that retentive subsoils or great accumulations of surface soil, are the fruitful cause of these diseases that are so alarming, because so unlooked for in the subject and so sudden and fatal in the termination.

ORNAMENTAL HEDGES.

There are many kinds of shrubs that are capable of being converted into an ornamental hedge—in fact, almost any kind can be so converted, with proper care and attention in planting, pruning, &c. But, if there is one shrub that is better adapted for that purpose than all others, in our climate, in my opinion, it is the old and well known favorite, Japan Quince, more commonly called Fire-bush.

In Mr. Shaw's Botanical Gardens are numerous examples of ornamental hedges, made of the different hardy shrubs. Among them are several kinds of the *Spirea*, the *Wiegelia*s, Mock Orange, Privet, or Prim (the favorite garden hedge plant in Europe), and several others; and from most of them can be made very pretty hedges—but the great defect with all these is, that they cannot be relied upon to remain perfect and intact through a series of years; small and large branches, even whole plants, die out here and there, after the hedge is grown, mak-

ing great and unsightly gaps, which can never be filled up even and perfect so as to look like the original, even with the utmost care and pains. The Privet appears to suffer the worst of any in this respect, dying out in dozens and hundreds, after being well established, and for some unaccountable reason. The *Spirea Reevesii* is almost as bad, while the *S. prunifolia* is one among the best of the above-named, and is capable of being trimmed and made a really pretty hedge.

The numerous advantages the Japan Quince can lay claim to, as an ornamental hedge plant, may be enumerated in part as follows: Extreme hardiness—a single branch never gets winter-killed here; infinitely more hardy than our common domestic quinces, and all that can be asked or desired in this respect. It is a moderately rapid grower, fast enough for a garden hedge, and at least as fast as the famous English hawthorn, which it also considerably resembles in habit. The Fire-bush is essentially a shrub, and not a tree, and its habit is just right for a good hedge plant, namely, dense and compact, even without much trimming; then it is somewhat thorny and its branches quite stiff; when old, also, strong and tough; not brittle and easily broken. There is no plant that will bear clipping and shearing better than it will; but I am satisfied that when once started into proper hedge form, there are few plants that will require less attention, in the way of clipping, to keep it in good form, than it will; it is so susceptible of management that any form that a hedge can be made to assume, can be made of this plant. As regards beauty, while it is true that an untrimmed, neglected bush, has a rather ragged, rough appearance, a neatly-trimmed bush or hedge of it, has exactly the reverse; and during spring and summer, when in foliage, few shrubs are prettier. The foliage is dark, glossy and beautiful, while the leaves on the points of the young shoots are of a reddish-purple, affording a pretty contrast to the dark green of the older foliage; and last, but not least, its large and brilliant crimson blossoms in earliest spring—that which gives it its name and its popularity as an ornamental shrub—are not surpassed in beauty by any shrub we possess; and it is difficult to sum up more attractions or more good qualities for a hedge plant, in any one shrub, than in this. Finally, however, it bears transplanting well; is easily propagated—any one having a stock of old plants can extend them rapidly by dividing it up, tearing off the suckers that spring up around its main stem, and also by cuttings of the root; but by shoot cuttings, or layers, or from seed, it is very slow of propagation, and a person must have some rather large, old stools, to work upon to increase it very fast. Speaking of suckers, they may be regarded as an objection by some, but it does not spread all over the ground and throw up suckers, like the *Ailanthus* or the *Silver Poplar*; but, what suckers it has, come up immediately around the stem and inside of the spread of the branches, and if not wanted or are any way objectionable, can easily be removed.

C. S.

Old raspberry canes should be cut away as soon as they have done bearing, and young ones pinched back to from three to four feet in height, according to circumstances. From four to six inches should be taken from the top of the cane. This will cause the young canes to grow strong and bushy.

THE KNOUS APPLE.

In this age of progress we are ever on the inquiry after something new. This is especially the case in regard to fruits and horticultural products generally.

We are not at present after anything new, but something old and good. In Whetmore's *Gazetteer* of the State of Missouri, published in this city in 1837, is to be found the following notice of this apple. At page 91 is "The description of the *Knous Apple*: The tree that produces this fruit was raised to bearing size from the seed, by Mr. Henry Knous, of New Franklin, Howard county. The apple is as green as the foliage of the tree on which it grows, until frost begins to turn the leaves of forest trees, when the apple changes to a deep red.

"In the year 1832, the fruit of the former year was preserved in a sound state until the 17th of August; and on the 10th of that month, the rare-ripe apples of this celebrated tree were exhibited, with the fruit of the past year, and the soundness of both prevented a discovery of which was the old apple—as one of these was a deep green and the other a dark red, no one would have suspected them the product of the same tree. He had, on the 15th of July, 1836, thirty-five of these apples in a perfect state of preservation, which were designed for exhibition on the first Monday in August—the day of the general election in Missouri."

Among the vast number of new claimants on public favor, this "child of the Manor" seems to have been lost sight of. It is true nothing is said of its value, whether adapted to the family, market, or stock; as to its position in a culinary point of view, whether sweet or sour, &c.—but, in our endeavors to get the best, can we not have the experience of some of the lovers of fruit with an apple that deserves such a notice as this? The trial of over thirty years has great value; can we not obtain the results? Who now has, or has ever seen, the fruit?

Citizens of Howard and adjoining counties can probably enlighten us.

BOTANY OF MONTANA.

The flora of Montana is not alpine, as might be expected from its altitude and latitude. I find plants here which are carefully protected from the frosts of the Middle States. In traversing our valleys and climbing our mountains, one is surprised to find so many familiar shrubs and plants cultivated in the East for their fruit or their beauty.

As a rule, the flowers are beautiful and delicate, often bright, clear and rich, seldom dull and tawdry. It has been my pleasure to collect and examine the delicate and beautiful flowers of New England and the Central States, and the rich, gaudy flora of the great central valley and the "Western prairies;" but nowhere have I seen such a profusion of little bright-eyed plants and large, brilliant flowers, as in the broad valleys and on the grand old mountains of Montana. At every turn, some old-cherished homestead shrub or vine tangles your pathway, or something surpassingly beautiful or delicate challenges your admiration.

One everywhere meets spiraea, mock oranges, chokecherries, service-berries, currants, gooseberries and uva-urses, all so closely entwined with the fond memories of early youth. These only make us miss the more the cranberry, boxberry, blueberry, bunchberry and the sweet Mayflower, so closely connected with them in the North-east.

Mountain maple, (*Acer Montana*) with its reddish leaves, purple stems and showy clusters of flowers and fruit, often occurs in the mountain defiles.

AMERICAN ROWAN TREE.

Mountain ash (*Pyrus Americana*) is sparsely diffused through the mountain forests, but is never found forming dense groves, as in Maine.

Service-berry (*Amelanchier Canadensis*) adorns all the water-courses with its clouds of white blossoms, and loads of large, purple fruit, which are sought by bears and birds.

Choke-cherry (*Cerasus Virginiana*). This shrub is not so large as in the East, but quite as beautiful, and fringes all the lakes and streams with its pendants of white flowers and purple fruit.

Red-berried elder (*Sambucus pubens*) is rare on the mountains. Its panicles of white flowers and red berries are conspicuous in the damp, shady woods.

Fragrant sumach (*Rhus aromatica*) grows in a few localities.

Prickly ash (*Zanthoxylum*) often reminds you of its presence in moist thickets by its sharp spines. The prickly ash is noted for its medicinal properties.

Poison oak (*Rhus toxicodendron*) is common in low, moist prairies.

ORNAMENTAL AND FRUIT-BEARING SHRUBS.

Nine-bark (*Spiraea opulifolia*) is very abundant and conspicuous for its numerous clusters of white flowers and reddish husky fruit.

There are two beautiful species of spiraea, one has broad corymbes of light purple flowers like the callosa, and the other is similar to this save its flowers are pure white.

Snowberry (*symphoricarpos racemosa*). This modest northern beauty, whose white, waxen berries are so much prized to adorn the hair of fair maidens, and which grows beside every farm house, cottage and palace, is quite as abundant as its more southern sister, the coral-berry, in the great central valley.

Missouri currant (*ribes aureum*) so generally cultivated as an ornamental shrub, is abundant in moist thickets.

Red currant (*ribes rubrum*). This is the common red currant of the gardens. It is common and productive on the Missouri above the great falls.

There are several other species of currants. One has large purple fruit, slightly acid and of pleasant flavor and prickly stems. Another has very bitter, dark, purple fruit.

Mountain gooseberry (*ribes* —) produces large, pleasant fruit in great abundance. It is much esteemed for tarts and jellies. There is another species producing oval berries covered with stiff spines or prickles.

Syringa, mock orange (*Philadelphus inodorus*) is common and very conspicuous on rocky banks of ravines, mountain gorges and slopes, for its large clusters of showy, white flowers. This is one of the varieties of this shrub so common in cultivation.

Bladder nut (*staphylea trifolia*) adorns our hillsides with its pendant clusters of yellowish white flowers and large inflated seed vessels.

False Indigo (*amorpha fruticosa*). This graceful shrub displays its purple plumes in the dry beds of mountain torrents and on the borders of prairie streams.

Silky cornel (*cornus sericea*) is common on all the water-courses in East Montana. It is called "kinnikinnik" by some; but the Indians of the Missouri use another species of cornus for their "kinnikinnik."

Kinnikinnik (*cornus* —), grows in the same localities as the preceding species. It grows solitary like miniature trees, and not in clumps like the other species. I saw the Indians select this species, scrape off the red outer bark, then carefully scrape the inner green bark into thin shreds, which they called "kinnikinnik." When dry, they rub it up with tobacco for smoking. They use it alone when destitute of tobacco. I must confess the mixture thus prepared is more agreeable than the pure tobacco.

Buffalo berry (*Shepherdia argentea*) is found on the Jefferson and Madison, the Missouri above the falls, and the Yellowstone. The scarlet berries and silvery leaves render this shrub bright and gay.

Scarlet thorn (*crataegus coccinea*) is rare in East Montana. I am almost certain I saw this species in the Hellgate river, in West Montana.

Sage bush (*artemesia cannaea*), very common on prairie valleys and lower slopes of the foot-hills.

Grease bush (*sarcobatus Maximilianus*) on dry prairies.

Linosyris graveolens, called "grease bush," in Montana grows with sage bush. Its dry branches ignite readily, and are used to kindle fires.

Wild rose [*rosa sylvestris*] common on streams and about thickets.

Cinnamon rose [*rosa cinnamomea*], so long and generally cultivated in the rural districts of New England, is very common on the borders of streams and thickets.

Flowering raspberry [*rubus odoratus*] is rendered very conspicuous by its dark, showy flowers and large leaves. It has the largest leaf of any tree or shrub seen in Montana.

Red raspberry [*rubus strigosus*], a species bearing excellent red fruit, is sometimes found in small patches high up the mountains.

Blueberries [*vaccinium tenellum*]. There are two small species which grow in the thick pine forests of the

mountains. One is very small, with very small, reddish purple fruit; the other is larger, but still small, with reddish, pear-shaped, pleasant fruit. I have never seen berries so abundant as to be gathered for domestic uses.

Bearberry [*arctostaphylos uva-ursi*] grows everywhere in the mountain regions, where it is called "Larb." The leaves are dried and used with tobacco for smoking, the same as Kinnikinnik. It adds a very pleasant flavor to smoking tobacco. It does not produce so much fruit here as in the Eastern States.

Mahonia [*mahonia aquifolia*]. This small shrub has evergreen leaves like the American holly, large racemes of light yellow flowers and bluish purple berries. It grows on all the mountain glades and pine openings. It is a unique, beautiful shrub, about six inches high in Montana, but in the gardens of the Mississippi valley it grows to the height of two feet. The frosts of Missouri kill its young branches, while it withstands the cold of Montana, 8000 feet above the ocean, without injury. This shrub is well worthy the care it receives in cultivation.

Mountain potentilla [*potentilla fruticosa*] is very common in all the mountain regions. It grows in small clumps, and renders all the mountain bogs and swamps bright with its golden flowers. It blooms all the season, and would be an acquisition to ornament wet places in park and copse.

Of this list of shrubs, the following extend west to the Pacific and north to Sitka: cinnamon rose, red currant, mountain potentilla, red berried elder and bearberry.

FLOWERING PLANTS.

But what have flowers to do with the resources of Montana? Much every way.

"A thing of beauty is a joy forever." The beautiful flowers are a perpetual fountain of sweet pleasures—pleasures never ceasing while the rose blushes beside the thicket and the harebell nods in the green meadow. "Behold the lilies." The bright hued flowers are the terrestrial rainbow constantly reminding us that the good God is still smiling upon us and strewing our pathway with tokens of divine love.

They indicate the season and the soil; what fruits and grains will ripen under our suns, and what will grow upon our soils. They tell with unerring certainty what is dry, what wet, what cold and what warm, what alkaline and what saline.

What then is more useful than that which lessens our toil in the pursuit of food and raiment? What more delightful than to be reminded by His smiling flowers of the ever-watchful care of the great Creator? What more grateful than an everlasting pleasure.

Of the great profusion of beautiful flowering plants, I can mention a few only of those most common and interesting. First and foremost of all is the

Bitter root [*Lewisia rediviva*]. This plant, so much sought by the Indians for food, and from which the Bitter Root river and mountain and valley derive their name, is one of the most common of the mountain valleys. Its large clusters of bright, showy, pink flowers, resting upon the dry sands, dot the plains like showy bouquets on a brilliant carpet. It was once cultivated in Europe for its modest beauty; but it has probably disappeared, as I find it in none of the florists' catalogues. It is worthy of a place beside the rich portulacae, which it somewhat resembles. Its name commemorates one of the earliest explorers of our Territory, Captain Lewis, of Lewis and Clark's expedition.

Nouselia ornata is a magnificent beauty, growing on the ancient lavas of our volcanic cones, craters and plains. It has a globular top about one foot high, covered with bright, showy, straw-colored flowers, which are formed like the pond lily, with the outer petals turned back on the stem, and its center filled with a fairy forest of long silken stamens. I am not aware that it has been cultivated. It would certainly rival the fairest queen of the parterre.

Rumex venosus is a most singular and showy flower. On meeting it far north in the cold spring time, you could but think it some tropical production escaped from the conservatory. It is common on the banks of the Missouri, from the eastern boundary of Montana to the great falls.

Lupine (*lupinus perennis*). This old familiar flower of the cottage garden grows everywhere, from the low prairie to the dry sunny glades of the mountain heights.

Virgin's bower (*clematis Virginiana*) is generally distributed, but not abundant, in the valleys. There is another [*clematis*] with large, showy, purple flowers, much more abundant. It is usually seen trailing over the thickets of alders, willows and aspens in the mountain glens.

Indian "quamash," usually written "camass" [*camassia esculenta*], is much used by the Indians for food. It has a bulb like the onion, and the medicinal properties of the squills used in medicine. Professor Gray puts it in the same genus. This is a common and rather ornamental plant in Montana.

Potentilla [*potentilla anserina norvegica*] and other species deck all the low prairies with their bright flowers and silvery leaves.

Strawberries, bright, red and delicious; often give the weary traveler a refreshing lunch.

Geraniums—Fremont's and Richardson's—are found in every dell and glade and open forest.

Sedums and dwarf phloxes open their bright-eyed clusters in every dry, sunny spot, from the low plains to the top of the high Cordilleras.

There are several species of larkspur. The most common has very long spikes of large, bluish, purple flowers.

Asters are so abundant as to whiten the low meadows, and tinge the hillsides with purple; and solidagos render the autumn landscape gay with their yellow plumes.

Anemones, erythroniums, claytonias, dodecatheons and "flowering mosses," push their delicate flowers up through the late snows of spring, and the blue cups of the gentians are often seen above the snows of early winter.

While the actaeas, linnaeas, uvularias, thalactrams and pyrolas prefer the shady forests, the harebells, corydallis, and violets delight in the sunny bank, and the astragalus and heliotrope adorn the dry sands; and the soap plant, [*yucca angustifolia*], and a large, showy *cenothera* flourish upon the barren clays of the "Mauvaises Terres."

Wild flax, butter-cups and irises grow most with the native clovers, timothy and red-top of the rich, natural meadows.

Riding through the valleys you will pass across carpeted with heliotropes, that old friend of the flower-pot and conservatory, and the delicate harebell, that "sprang elastic from the tread" of "the lady of the lake." If seeking the speckled trout in the mountain stream, you will find your way obstructed by the delicious cinnamon rose, which always grew under the window of the old homestead; and your hook will fall beside the floating ranunculus, the "sweet naid of the brook" that babbled in the dell of the old home farm. If you climb the mountains, your boot will crush clusters of gaudy cacti and bright sewias; the twin-flower will spangle every moss-covered rock and damp turf with its tiny, fairy rose-bells, mingled with the begummed waxen cups of the pyrola. On each volcanic cone and crater, the menziesia displays its ornate clusters, which rival the proud lily in beauty of form and delicate coloring and the cacti in the rich profusion of silken stamens; and away up beside the everlasting snows cluster the claytonias, anemones, violets and cowslips; and everywhere on the sunny heights the red, white and blue dwarf phloxes, "flowering mosses," tufted sedums and bright, ever-changing gnaphaliums, the most beautiful of all, shine like clustered gems.

Such are the impressions made upon me by the flora while exploring the rocks and minerals and ores and mines of the Territory.—[G. C. SWALLOW, in St. Louis Times.]

GRUBBING FRUIT LANDS.

The remembrance of our early experience as an apprentice to the business of "extracting roots," (not cube roots) was daily and hourly brought to our mind, while out on the 'hills' among the 'clearings,' being made by the fruit-growers to plant out their orchards.

Their practice does not tally with our experience, as very little real grubbing is done, but instead the land is 'shrubbed' off by cutting down the small growth of timber and the underbrush, which is burned, and the land thus cleared, is with its thousands of stumps and roots 'plowed at' by pitching the point of the plow into any open space where the roots and stumps do not occur, and in this way enough soil is stirred up, so that some corn can be planted or fruit trees or grape vines set out. This is continued from year to year, attended with much labor of 'sprouting' until the stumps and roots from sheer force of being dug and plowed about, begin to decay and finally in from five to eight years the land assumes a fair tillable shape, that it should have been in from the time it was first commenced to be cultivated, if the grubbing had been done at once, and at the start. In our experience of clearing land it was done thoroughly at the start, and the full strength of the land in all its native fertility was given to the growing crop at once, and we know that twice the yield of grain, fruit, potatoes or any crop the land is planted to, will produce double on well grubbed, well cleared, and as a consequence

well and deep plowed land, that it will on land that is only 'shrubbed' off; and we know that while this 'shrubbing' is being done, that more than one-half of the same land can be well grubbed, clearing the land of all roots that would, to any great degree, impede the plow, or prevent the soil from being thoroughly turned over and pulverized the first time it is plowed. The reason given by a great many why they do not grub the under-growth and small trees, instead of cutting them off above the ground, is that the cutting off can be done easier, and more land brought under cultivation by shrubbing, in the same time, than by grubbing. We speak from experience when we say that grubbing is as easy work as chopping, plowing, hoeing in the field, or most of the ordinary work of the farm, when it is rightly understood. Like every other branch of farm labor, skill and good tools have a great deal to do in facilitating the work and making the labor easy. To do grubbing well and quickly, a light grubbing hoe in the shape of an adz should be provided, and with this dig away the earth from the roots of the tree or sapling for some distance around the base. As the roots are uncovered, with a sharp ax cut them off, the outer or smaller end first, then close to the base of the tree—this leaves everything clear to get at the lower or main roots, which, when once reached, can be cut off. When this is done, most trees can be forced over by the aid of the leverage afforded by the weight of the tree top, and as it inclines over the other roots will be exposed, and one or two blows from the sharp edge of the ax will do the work, and stump and roots are forever out of the way. Many times, quite a tree or sapling can be grubbed out, while it would be cut down, and in hardly any cases, would a good axman cut down two trees, while a good grubber would take up one, thus showing that it is economy in saving time, and also in raising twice the amount of crops, over what can be done in the slovenly mode of 'stumping' or shrubbing the land. Then in the fruit lands of the "Belt" the *saasafra*s is the hardest to subdue; unless it is deeply grubbed and the roots well taken out it is a perpetual sprouter, and the fruit-grower and farmer has to sprout his land twice each year to have the farm or orchard in any kind of a presentable condition. Deep and careful grubbing will eradicate it forever. Then again land well grubbed is half cultivated ever afterwards. The place where the tree or sapling is taken from, the land is already subsoiled. There the largest hills of corn will grow, or the thrickest apple, peach or pear tree, while if the stump is still there, nothing will grow, only sprouts that extract the fertility, that should aid in growing the crop. If we were going to raise fruit in Southern Illinois, we would clear the land thoroughly at first, then plant or set out the crop or fruit that we wished, and we think we would make more money than those that spread their operations over a larger space, and half of it unplowed, because of the roots and stumps. The science of splitting rails, grubbing, plowing, fence building, driving oxen and every labor, that is hard work, and that comprises the initiatory work on a fruit farm, as it should be done on the fruit hills of Southern Illinois, we have served our full time at, and if we give our laboring brethren a short lesson occasionally, we hope they will take it kindly, as it is meant for their great profit, if they will heed it, and it will not hurt them to read, even if they do not heed our experience. On the other hand they can teach us many things in the science of horticulture, that we have had no practical experience to speak of, but acknowledge receiving valuable information from almost every orchardist we called on, and we think that two or three more 'walks and talks' among the fruit-growers of the 'Grand Chain,' would result in making us a pretty thorough orchardist in theory, however we might fail in practice. But not to forget the subject on which we started out, we think

every fruit-grower and farmer would make more money by 'grubbing' and not shrubbing their land, before planting out their orchards.—*Bonham's Rural Messenger*.

BLACKBERRY WINE, &c.

Blackberry Wine.—Gather when ripe, on a dry day. Put into a vessel with the head out, and a tap fitted near the bottom; pour on them boiling water to cover them. Mash the berries with your hands, and let them stand covered till the pulp rises to the top, and forms a crust in three or four days. Then draw off the fluid into another vessel, and to every gallon add one pound of sugar; mix well, and put into a cask to work a week or ten days, and throw off any remaining lees, keeping the cask well filled, particularly at the commencement. When working has ceased, bung it down; after six or twelve months, it may be bottled.

Blackberry Wine and Cordial.—We add another recipe, which has been extensively published and is highly recommended. It is as follows:

To make a wine equal in value to port, take ripe blackberries or dewberries and press them; let the juice stand thirty-six hours to ferment; skim off whatever rises to the top; then, to every gallon of the juice, add a quart of water and three pounds of sugar (brown sugar will do); let this stand in open vessels for twenty-four hours, skim and strain it, then barrel it until March, when it should be carefully racked off and bottled. Blackberry cordial is made by adding one pound of white sugar to three pounds of ripe blackberries, allowing them to stand twelve hours; then pressing out the juice, straining it, adding one-third spirit, and putting a teaspoonful of finely powdered allspice in every quart of the cordial, it is at once fit for use. This wine and cordial are very valuable medicines in the treatment of weakness of stomach and bowels, and are especially valuable in the summer complaints of children.

Another Recipe for making Blackberry Wine.—The following recipe for making blackberry wine is given by the *Richmond American*: Measure your berries and bruise them, to every gallon adding a quart of boiling water. Let the mixture stand twenty-four hours, stirring occasionally; then strain off the liquor into a cask, to every gallon adding two pounds of sugar; cork tight and let it stand till the following October, and you have wine ready for use without further boiling or straining, that will make your lips smack as they never smacked before under such influences.

Blackberry Jam.—Gather the fruit in dry weather; allow half a pound of good brown sugar to every pound of fruit; boil the whole gently together for an hour, or until the blackberries are soft, stirring and mashing them well. Preserve it like any other jam, and it will be found very useful in families, particularly for children—regulating their bowels and enabling you to dispense with cathartics. It may be spread on bread, or on puddings instead of butter, and even when the blackberries are bought, it is cheaper than butter.

Blackberry Wine.—Scald the fruit. The juice will then press out easily. Allow for every two quarts of clear juice one quart of soft water and three pounds of white, coffee sugar (some prefer brown sugar); let the bung of the keg or barrel remain open until fermentation ceases. Then close the bung tightly and place the barrel where it will not be disturbed for some months. Bottle the wine eight months after it is made.

The wine is often diluted too much with water, and often made too sweet. If a less quantity of sugar is used, the wine must be more carefully watched at the close of fermentation. It is liable, if left open beyond the proper moment, to turn sour.

Blackberry Cordial.—The following is said to be not only an excellent beverage, but a cure for diarrhoea, &c.: To half a bushel of blackberries, well mashed, add one-half pound of allspice,

two ounces cinnamon, and three ounces cloves. Pulverize well, mix, and boil slowly till properly done. Then strain or squeeze the juice through homespun or flannel, and add to each pint of juice one pound of loaf sugar. Boil again for some time, take it off, and while cooling add half a gallon of the best Cognac brandy. Dose for an adult, half a gill to a gill; for a child, half a teaspoonful or more, according to age.

HARDEMAN'S GARDEN.

"When the town of Old Franklin was in the most prosperous condition, and increasing in population and wealth in an unparalleled degree, Mr. John Hardeman, a gentleman of fine taste, was carrying forward improvements in his horticultural and botanic garden, about five miles above that place, on the bank of the Missouri. The destructive vagaries of the river were not then well understood, and it was believed that a bottom, protected with a fine growth of forest trees (as Mr. Hardeman's plantation was), would be secure against the annual freshets. Ten acres, laid off in an exact square, had been set apart—and no labor nor expense were spared to render this garden, in the richness and variety of its productions, a perfect parallel to the most happy descriptions of Eden. This spot of earth was adorned with fruits, and flowers, and trees, indigenous and exotic; with *sombroso* foliage, that lent enchantment to the labyrinth through which the serpentine paths led the admiring visitor. Fruit trees and ornamental shrubbery were transported, with successful care, more than a thousand miles, to perfect this favored spot. The native grape of Missouri and the Scuppernong of Carolina, were introduced into the society of distinguished foreign vines from Madeira and Oporto, and these, in rich clusters, contributed to the ruby streams of pure and exhilarating juice that flowed from the wine press, here successfully trodden.

It would be more than passive ingratitude for all the survivors of the gay and cheerful groups who once trod the avenues of this court of Flora, to refrain from making record of the unostentatious hospitality of this tasteful devotee of that goddess.

Here the fruits of the varying season were dispensed with an open hand, moved by a generous and joyous heart. It was the joy of reason, chastened with the influence of philosophy? Like an infinite amount of anticipated enjoyment, the fascinations of this spot, too, were evanescent. When the mountain snows melted and poured their waters in redundant volumes upon this alluvial bank, the earth itself dissolved in the excessive floods, and this garden, with its poetic symmetry, was carried away by the resistless action of the "Mad River." Its evergreens and richly laden fruit trees were uprooted, and dead apples floated upon the waters: and now a neglected corner, with a section of unpruned orchard, alone remains to mark the spot once devoted to mental and material luxury.

It is a just conclusion to arrive at, that the learned and tasteful proprietor of the Elysium, thus ravaged from his possession, felt the pain of kindred bereavement when receding, step by step, from the encroachment of the fluid destroyer. The exodus of trees he had planted and pruned; the departure of foliage, beneath which he had pored over his classic volumes in relaxation from the manly toil to which he was then accustomed—inflicted pain, like night-watching of a parent over his expiring progeny."—*Whetmore's Gazetteer*, Mo., 1837.

FLOWERING BULBS.

Now is the time to dig up hyacinth and tulip bulbs. Let them lie in a secure place to dry. Label as to color and name, if known. Select the best for flowering for next year and re-plant the smaller ones to increase the size. None but genuine good ones, true to name and color, should ever be put on the market, if the gardener's reputation is better than Gov. Weller's, who, when he said, "I have lost everything except my reputation," was answered by a bystander: "Well, Governor, you travel with the lightest baggage of any man I ever saw." **HT**

Prepare your beds well with rich compost, and plant your bulbs for next season's flowering about the last week in September.

The Vineyard.**Work in the Vineyard.**

The vineyard should now be in the best possible condition—everything neat, clean and in order. It is often asked, how long shall we cultivate the soil in the vineyard? This will very much depend on the age of the vines and the character of the soil and season.

In the young vineyard, the first year, we doubt if it is possible to stir the soil too frequently or too long in the season, provided the vines have been kept in a continuously growing condition. We have had vines kept constantly growing and constantly cultivated till frost terminated the action of the leaves, and had well-ripened wood, sound, well-developed buds, that made a gorgeous growth that season, and one equally good the next.

As to whether it is better to keep the vines tied up to the stake the first year or not is, perhaps, more a matter of convenience and opinion than one of fact. In order to keep the ground in a state of perfect cultivation, we prefer having them tied up. The moving of the shoots out of the way of the hoe, and the sprinkling of the soil over the leaves in wet weather—impairs the functions of the leaf surface and retards the perfect development of the vine. Lying loose, may make short joints and compact wood; but order, cleanliness and convenience, are best maintained by tying up.

As to summer layers, where it is at all admissible, it can yet be done—but must be done at once; and the character of the plants will depend very much upon the question of late or early frosts.

In the bearing vineyard but little stirring of the soil should now be needed. Have the soil in good order, and after the beginning of August but little more is needed, and that merely keeping down the weeds. This can be done by merely scraping the surface or frequent cutting off with the scythe.

This season there will be but little danger of starting the eyes on the next season's bearing canes by long-continued cultivation; but, where a long-continued dry spell had repressed the wood growth, and particularly where aggravated by cutting off the ends of the shoots at the top of the trellis—the most disastrous results have followed to the next year's crop, by the "breaking" of the buds on the cane. Steady, uniform,

regular culture and growth, produces the best results. Impetuous, fitful culture, is, in many cases, more detrimental to a vineyard than neglect. To do everything in the right time is half the work accomplished.

GRAPE ROT.

From what we can ascertain by our exchanges, and by commingling with our fellow grape growers—the rot or mildew in grapes the present year has been more than usually disastrous to the crop, and many varieties considered nearly exempt from it, have suffered severely. Some locations, however, have been comparatively exempt from the calamity.

Colman's Rural World.

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**EDITOR'S TABLE.****AGRICULTURAL AND HORTICULTURAL FAIRS.**

As has been our custom, we intend to publish a complete list of State and County Fairs, to be held in the fall of 1869.

Exhibitors and visitors are anxious to select their points early in the season, and hence they are on the look-out for information. Many fairs occur at the same time, and it is impossible for man to be in more than one place at a time (a well known fact).

It will be evident from the foregoing, that it is to the advantage of every association to furnish us and our readers the time (dates) and place of holding their respective fairs. Please to give the place, county and dates in full, and at the earliest moment.

SOUTH-WESTERN BOOK PUBLISHING COMPANY.—A company with a large capital has recently been organized in St. Louis, under the above name, with Logan D. Dameron, Esq., President, and Rev. T. M. Finney, Secretary. They have purchased the good will of the Christian Advocate and other papers, and are preparing to do the largest business in the West as book-sellers, stationers, publishers, book and job printers, book-binders, blank-book manufacturers, stereotypers, lithographers, &c.

The gentlemen connected with this enterprise as directors and stock-holders, are some of our wealthiest citizens. They are likewise gentlemen of the best business qualifications, as well as honorable and high-minded men, and we hope to see the enterprise they have inaugurated crowned with the highest success.

EARLY GOODRICH POTATOES.—Mr. J. P. Cummins, of Godfrey, Ills., has presented to us some very large and fine specimens of Early Goodrich potatoes, that are perfectly solid and sound, and judging by the product of the hill which he presented, must be enormously productive.

Fair at Macon City, Mo.

The fourth annual fair of the Macon County, Mo. Agricultural and Mechanical Society will commence at Macon City Sept. 28th and continue five days.—Macon City is one of the largest towns in Missouri, and is the centre of trade of a great agricultural region. It is located at the crossing of the N. M. and H. and St. Joe Railroad, and has excellent facilities for trade and commerce, as well as for holding one of the largest fairs in the State. We have visited the Fair Grounds of this Society and they are only second to those of St. Louis, in the State. An excellent mile track has been made, also an ample half-circle amphitheatre; halls for holding the various articles that may be exhibited, excellent stalls for the accommodation of stock, &c. Exhibitors of stock, machines, agricultural implements, &c., in Northern Missouri would advance their interests by making a note of the time of this fair and arranging to be present. We are personally acquainted with the popular President, John W. Henry Esq., and exhibitors may rest assured that ample justice will be meted out to them, and everything conducted on honorable principles. Mr. Henry, although a lawyer by profession, is also a farmer and takes the liveliest interest in the advancement of our agricultural interests, by the introduction of the best breeds of stock, improved machinery, fine fruits, &c. We predict a very successful exhibition at Macon City.

FAIR AT BOONVILLE, Mo.—The next annual Fair of the Cooper County Agricultural and Mechanical Association, will be held at Boonville, commencing on the 28th of September, and continuing four days. The Editor of this journal has accepted an invitation to deliver the Annual Address.

PEACHES.—Mr. S. A. Reppy, of Jefferson County, Mo., will accept our thanks for some very fine specimens of Peaches. We are not able to identify the variety, but think there is nothing of its season that will compare with it. It is a clingstone, and its season of ripening is about July 20th. It is red, very showy, rather round, suture quite distinct. It is very juicy and of best quality.

The third Annual Fair of the Sturgeon District Central Agricultural and Mechanical Association, will be held at Sturgeon, Mo., Sep. 7-11. Thanks for complimentary ticket.

BOOK NOTICES.

OUR DUMB ANIMALS, published by the Massachusetts Society for the Prevention of Cruelty to Animals. 46 Washington Street, Boston.

We are in receipt of a copy of this truly excellent publication. Its teachings are mercy—its spirit is peace. It appeals to our better nature in language conveying facts and arguments that will elevate and improve our race, and can in no respect invade the rights or injure the feelings of humanity.

Liberty is well defined as the right to do as we please, so that we do not encroach upon these same rights of another. This is the doctrine applied to the lower animals, in the journal before us.

REPORT OF THE ILLS. HORTICULTURAL SOCIETY.—We have received a copy of the Transactions of the Ills. Horticultural Society. It is issued in a neat volume of 392 pages. The Proceedings of the Northern Illinois Horticultural Society are also included. The Prairie Farmer Company, of Chicago, are the Publishers, and the job does credit to their establishment.—Any one can obtain a copy of the work and also a membership in the Society, by remitting Two Dollars, to Hon. W. C. Flagg, Alton, Ills.

THE WEATHER

FOR THE WEEK ENDING JULY 17TH.

The week ending with this date has, so far, been the hottest of the season, but having the same range as the last. A heavy rain on the 11th was followed by a great reduction of temperature, accompanied with evidences of heavy storms to the north-west. A drizzling rain on the morning of the 12th gave way to bright sunshine, which increased with much steadiness till the 16th, marking as a daily mean, 82, 83, 84, and 85 degrees respectively. It felt as if the

heated term was fairly under way. While this high temperature rendered harvesting and stacking hard work, it did much to brighten the prospects of the farmer. The 16th furnished 94° on a north porch, and 126° in a full exposure to the sun.

The effects of the long-continued wet and cold are quite visible on the trees in the forest, a second growth of twelve to eighteen inches having been made. We saw apple blooms on the Red June while full of fruit.

Mean of the week, 82.23°.

Maximum on the 15th and 16th, 94°.

Minimum on the 11th and 14th, 76°.

Range, 18°.

FOR THE WEEK ENDING JULY 24TH.

The past week, in all its features, has been cooler than the preceding, and one of the very few that presents a dry record this season. The very clear indications of storms at a distance at the end of the previous week were accompanied with a change of wind and fall of temperature, till on the 21st, heavy coats and gloves were in order among morning out-goers. The wind has had quite a parching feeling, and the very succulent condition of vegetation, taken in connection with rain-beaten ground, rendered rain quite desirable. The corn crop is unusually impatient of drouth after so much and long-continued moisture. The loss in hay has been quite large, and the average quality of wheat much impaired.

Mean of the week, 74°23.

Maximum, on the 24th, 90°.

Minimum, on the 21st, 58°.

Range, 32°.

ST. LOUIS GENERAL MARKETS.

OFFICE OF THE RURAL WORLD AND VALLEY FARMER,
St. Louis, July 26, 1869.

The week past has, upon the whole, been favorable to secure the grain still outstanding, a very large and valuable addition to which has been made by the winter wheat crop of Minnesota, which covered a very large area, and which has given also very great promise as to yield and quality—all believed to be mature now.

Notwithstanding all the drawbacks of rain and flood and the consequent losses to some sections, we are compelled, from all the data at present accessible, to pronounce the winter wheat crop of 1869 the largest and best ever matured in the Great Valley of the Mississippi.

Corn, cannot, at best, be more than seven-tenths of a crop—perhaps not that. A great deal of last year's crop is not merchantable at all; still more has been damaged in the elevators, and we judge that "corn will be corn" during the winter of '69 and '70. It will be, proportionately, the most valuable grain.—One thing, however, militates against very high prices for corn—that is, the exceedingly fine and bountiful crop of oats. We will venture to say, that the oat crop of this section is, in consequence of the cool and moist spring and the short term of hot weather, much finer and heavier than usual. We have noticed one fine crop of oats raised on sod, where, in an ordinary season, in the extravagant language of another, "a pair of scissors and a coarse comb" would have been required to secure any of them.

The receipts of wheat have increased from about 50,000 bushels, the week before, to nearly 150,000 for the week just closed. Choice spring wheat was in demand, probably to mix with the new winter wheat. Millers know, and so do farmers, that the new, rather damp winter wheat, does not make near the number of pounds of flour per bushel, as that which is thoroughly dry and has gone through the sweat. The present condition of winter wheat is very much like that of England usually, hence England needs our dry wheat to mix with the damp of their own raising, in order to obtain the largest yield of flour.

We quote:

TOBACCO: Inferior common lugs, \$4@5; factory do. \$5 25@6; planters' do. \$6 25@5; common leaf, \$8@9; medium, \$9 25@10; do. bright Mo. \$12@20; good to fine do. \$20@50.

HEMP: Market firm, and demand equal to receipts. Undressed, \$110@130; choice, \$160; choice hackled tow, \$118 per ton.

FLOUR: Spring xx, \$5 75@6; xxx, \$6 25@6 50; club, \$7@7 50; fall xx, \$6 50@6 75; xxx, choice and family, \$7 75, 8 75, 9 00@9 50.

RYE FLOUR: A slight advance. \$6 75 for city; \$6 @6 10 for country.

CORN MEAL: \$4 60@4 75. No country offered.

WHEAT: We advise farmers not to put their wheat on the market, except in condition. There is too much talk of damp, bleached, dark, &c., all of which is calculated to defraud the farmer.

No. 2 spring, \$1 20@1 22. Winter prime, \$1 32@1 35. Old red, \$1 50@1 55.

CORN: Mixed, 94c; yellow, 96c@1; white, \$1 04 for No. 1 to choice.

OATS: 70@74c, according to color and quality.

RYE: Steady, \$1 23@1 25. If corn does not mature a good crop, rye will command extra prices.

BARLEY: No market established—in consequence of bleaching, much will be sold at very low figures.

HAY: Good new, \$22@23. No. 1, old, \$27.

HIDES—Dull, at 22½c for Western dry flint; 18½@19c for dry salted, and 10½@10¾ for green do.

WOOL—Receipts have been quite light, and considerable has gone forward direct to Eastern manufacturers. The demand, however, was excellent, and market firm, at annexed quotations. We quote: Tub-washed, 50@53c; fleece-washed, 35@45c; unwashed—combing, 35@40c; do Delaine, 33@36c; do medium, 30@32c; do fine, 25@28c. Saturday, sale of 20 sks fair tub at 51½c.

EGGS—Plenty, and very dull at 12½ to 14c.

BUTTER—Inferior and medium dull and unchanged, at 18@21c to 22@24c; prime yellow firmer, with a moderately fair movement, at 25@27c; choice dairy was better, with light supply and excellent demand, chiefly at 28c, but choicest table selections now command slightly higher rates.

CHICKENS—Were plenty and dull, and the price declined. We quote young at \$1 50@2 75, and old at \$4 50@5 25. Very small young were next to impossible to sell.

ONIONS—The supply has been about equal to the demand, and the market has ruled steady at \$2@2 25 for good to choice.

POTATOES—Receipts are mainly by wagons. With little or no shipping demand the market has ruled dull, and prices have again declined, at \$1 25@1 35.

GREEN FRUIT, ETC.—Apples less active, more plenty, and prices easier, at \$2@2 25 to \$2 50@3 50 for common and fair to good shipping and choice eating; other kinds of fruit in small supply and firm. We quote: Blackberries, 30@50c @ gallon; currants, \$3 @3 50 @ bus; plums, \$1 50@2; peaches, 75c@82 @ ½ bus box; do @ basket, \$1 75@2 50; pears, \$1 @1 50 @ bus; tomatoes, \$1 50@2 25 @ bus; cucumbers, 10@25c @ dozen.

DRY FRUIT—Is unseasonable. Nothing doing on 'Change. Mixed peaches at 12@13c, and halves do at 15@16½c.

SEEDS—Choice flax is worth \$2. Nothing in grass or hemp.

BEANS—White dull, but held firmly. Trashy and common range [nominally] at 50c@52; fair to choice hand-picked, medium and navy, \$2 50@2 75 to \$3 @3 50. Castor scarce; worth \$2@2 35, as in quality.

CHEESE—Very dull.

NEW VEGETABLE.—The Cheyenne correspondent of the "Chicago Tribune" mentions a new vegetable as follows: We have been enjoying the luxury of a new vegetable that has lately been discovered in great abundance on the plains. Mushrooms, of gigantic size and extraordinary flavor, have been found growing by hundreds of thousands all around Cheyenne. The writer saw one that weighed one pound, was twenty-one inches in circumference, and seven inches in diameter; stem two inches thick and five inches long. When prepared for cooking, the meat was thirteen inches from one rim to the other, and from one to two and one-half inches thick. I ate some of this monster fried in butter—and it would be safe to say, if the mushroom beds around Cheyenne were near your city, they would be worth \$100,000. Thus, every day, some valuable discovery is made in this new country.



[Written for Colman's Rural World.]

THE OLD TIME GONE.

BY A SCHOOL GIRL.

Memory comes with her glass to-night,
And adjusts it to my eye;
Bids me look far back through its misty light
To the sunny days gone by.
'Tis a winding path that fades away
To a dim trail traced by tiny feet,
Through the waving grass on a summer's day
For the delicate blooms of the clover sweet.

Many bright spots I behold in the past
Be-spangling my path all along,
And voices come to me that greeted me last,
Far back in the "old time gone."
These days are past, are gone forever;
Yet footsteps there have crossed my way,
And left a light that fadeth never,
But always round my path will play.

Deep under the waves of life's turbulent sea
Is stretched a strong cable I know,
That binds them now and forever to me,
And will hold them wherever I go;
And over these mystical wires will flow
To lighten my cares and fears,
A current of love from the "long ago"
A down through the silence of years.

There is shining now with its olden light,
Many an eye of heavens own blue:
Serene and mild as the moon-beams of night,
Bright as the stars and as true.
There are hazel eyes with dreamy depths,
Where the muses with unswept lyres,
Seem waiting Inspiration's breath
To quicken their smouldering fires.

There are eyes as dark as the midnight,
Yet bright as the golden sun,
With glances like arrows of sun-set,
When a summer's day is done;
Eyes of blue and hazel and black,
Are bending still on me,
And their blended light shall illumine my track,
Far across life's stormy sea.

[Written for Colman's Rural World.]

NELLIE'S NOTES, NO. 7.

I have lying before me a little piece of poetry, clipped from the *National Intelligencer*, of March, '66, which embodies much that is now on my mind—ideas suggested by a frequent repetition of that most disagreeable word "c-a-n-t." It is called "Your Mission," and shows how much is left undone in this every-day life, not so much from incapacity as from a continual striving after the unattainable. The small things we neglect, waiting for a "greater work to do." And I think men are more inclined to this course than we are. Our lives are so wholly made up of trivialities—or things which seem trifles and yet may not be neglected or post-poned—that we, in the work of to-day, are not so prone to wait for the greater work of to-morrow. But my observation of the sterner sex has taught me that, where one goes quietly and steadily to work in a small way and for small, procurable ends, a dozen will wait for a grander something, which is surely "coming." The race of Micawbers is not extinct—and more's the pity. Indeed I am afraid it is on the increase. The great wealth distributed throughout this country has much to do with it. Small things seem infinitesimally

smaller when continually compared with the great achievements of your next door neighbor, worth perhaps half a million, or more. But, because your little cottage measures but twenty-four feet on the street and the brown stone-front, over the way, is sixty feet, at the very least, it is none the less intrinsically valuable, being your home, and capable of as great proportionate comfort.

We may not all be Gilmore's and have our ten thousand choristers to sing our grand Peace anthems—but each one may sing in her heart a little carol, on the same exhaustless theme, which will go quite as straight, as prayer or praise, up to the ever-listening Ear.

So it is in everything. To do what comes up in the every-day routine, with our whole hearts—to do it well, however small it may appear, with no repinings that it is not grander—is, of itself, a great life-work!

We all have our aspirations and ambitions—it is well that we have—and our dream-life, so hidden from the outer world, is perhaps the brightest and completest we shall ever know here. But the poetry of motion is not motion itself. Facts and realities come, which must be met and met bravely—"can't" will not accomplish anything, but "I will" works wonders.

Here is the poetry—or a part of it—very simple, but very true, and which we could read with profit once a day, at least:

"If you are too weak to journey
Up the mountains, steep and high,
You can stand within the valley
While the multitudes go by;
You can chant in happy measure
As they slowly pass along—
Though they may forget the singer,
They will not forget the song.

If you have not gold and silver
Ever ready to command;
If you cannot toward the needy
Reach an ever open hand:
You can visit the afflicted,
O'er the erring you can weep—
You can be a true disciple,
Sitting at the Saviour's feet.

Do not then stand idly waiting
For some greater work to do—
Fortune is a lazy goddess,
She will never come to you.
Go and toil in any vineyard,
Do not fear to do or care;
If you want a field of labor,
You can find it ANYWHERE."

The Law of Conjugal Selection.

With regard to the proper combinations of temperament in the marriage relation, physiologists have differed, one contending that the constitutions of the parties should be similar, while others, on the contrary, have taught that contrast should be sought. It seems to us that neither of these statements expresses fully the true law of selection. The end to be aimed at is *harmony*. There can be no harmony without a difference; but there may be difference without harmony. It is not because a woman is like a man that he loves her, but because she is unlike. The qualities which he lacks are the ones in her which attract him—the personal traits and mental peculiarities which combine to make her *womanly*; and in proportion as she lacks these, or possesses masculine characteristics, will a woman repel the opposite sex. So a woman admires in man true *manliness*, and is repelled by weakness and effeminacy. A womanish man awakens either the pity or the contempt of the fair sex.

This law, we believe, admits of the widest application. The dark-haired, swarthy man is

apt to take for his mate some azure-eyed blonde; the lean and spare choose the stout and plump; the tall and short often unite; and homely men generally win the fairest of the fair.

In temperament, as in everything else, what we should seek is not likeness, but a *harmonious* difference. The husband and wife are not counterparts of each other, but complements, halves which joined together, form a rounded, symmetrical whole. In music, contiguous notes are discordant, but when we sound together a first and a third, or a third and a fifth, we produce a chord. The same principle pervades all nature. Two persons may be too much alike to agree. They crowd each other, for two objects cannot occupy the same space at the same time. While, therefore, we do not wholly agree with those who insist upon the union of opposites in the matter of temperaments, we believe that a close resemblance in the constitution of the body between the parties should be avoided, as not only inimical to their harmony and happiness, but detrimental to their offspring.—*Phren. Journal*.

TO YOUNG LADIES.

(Translated from the German.)

Young ladies, if you wish to be happy and contented after the marriage ceremonies and honeymoon are over, I would suggest the following:

Do not choose a lazy man; do not fall in love with a moustache, neither with a hat, neither fashionably cut trousers, nor blackened boots, or pomaded and artificially curled hair; neither look upon graceful dancing and horse-back riding—no, indeed! for with all the above-mentioned qualifications of, now-a-days called, a fast young man, you would not be able, with the best culinary skill, to cook a meal of victuals with it. But, if a man comes to ask you for your heart and hand, inquire if he is a skillful artisan, or a thrifty, industrious farmer who is up early and late, and rather does his own work and loves to do it, than to complain of hard times; or, if he understands to manage his fortune, if he has any, or has the ability to acquire one; ask him if he thinks there are six days in the week to work, and if he improves them, and then one Sunday to rest on, to praise the Lord and go to meeting—if so, and you can otherwise love him, take him, for he is sure to provide for you.

But, if he is one of them who loaf about half, and more than half the time, dressed in fashionably-cut garments, afraid to work for fear of soiling his clothes, always thirsty, and who has the sixth commandment seven times abolished—of course, let him stand in the cold and give him the mitten; for, with such a lounging, good-for-nothing dandy, you would be unhappy as long as you live.

If all the young ladies would at once join in a society and determine never to marry a lazy, flippant, good-for-nothing, do-nothing—the effect would be marvelous and create wonders; for the young men on matrimonial business would soon see the secret and go to work, earnestly and honestly, and endeavor to be sober and industrious in order to get them a wife of their wishes: the whole army of loungers and street-corner-watching gentry would disappear from the earth like frogs in winter. The recipe is bitter and severe, but it will cure undoubtedly—try it and see.

THE AMERICAN SKYLARK.

[The only bird of our country that sings, hovering on the wing.]

But hark! listen to the bobolinks in yonder meadow? Hear them jingling like a chime of silver bells in the air! A rare bird is this *Emberiza oryzivora*, this rice-hunting, this red bird, the Robert of Lincoln, this joyous, rollicking bobolink! He is our own bird. You may take him to merry England, or sunny France, if so it be that you can bear him over the foam alive, but there he will pine away for his native and changeable clime, sit songless on the perch, and in a little while droop his wing and die. A shrewd bird is Robert of Lincoln, and he must be more than a passable sportsman, and keep a keen eye open, who would bring him down—that is, before, on his return to the South, he gorges and fattens in the rice fields.

His pied coat of black, yellow and white, he puts on in the spring, when he goes a wooing his quiet Quakeress of a sweet-heart. Ah! what a gallant little lover he makes; how he jingles around and above her in his gayest garments and with his sweetest song. With what volubility he tells his tale of love.

And what a fond and careful husband he makes her, and how merrily spends his honeymoon! Singing his cheriest, he builds beneath the tufted meadow grass his lowly, secret nest; and while his modest little wife broods over her five white and brown eggs, he beguiles for her the long and tedious hours, hovering above her in mid-air with his fantastic plumes and songs.

But let the duties of a father press upon him, the rollicking lover, the light-hearted bridegroom ceases his amorous and delectable descant, assumes a grave manner and serious tone, and exchanges for his wedding garments a plain and dusky brown attire. Never puts on that gay robe again, unless to woo and win once more. For place him in a cage, and he will not droop while his pleasant native vales are around him; he will sing, though the prison bars shut him out from communion with his kind; he first saw the light where music like the broad sweet sunshine lay about him, and he cannot stifle the melody within his heart; but he will drop, one by one, those beautiful plumes, and never put them on again until love, freedom are once more his. When the autumn comes you will see the bobolinks gather together their household bands to troop for the South. The elders have lost their voices, while the youthful have not yet learned to sing. But every now and then an old one will try, on hovering wing, his melody, as if teaching his young the strain, and after uttering a few broken notes, sink down in seeming sorrow among the assembled broods. It is as if an aged sire, sitting in the calm sunshine of strong old age, should try, with feeble voice, some fond song of his lover days, or some childhood's ditty: then falter in forgetfulness and drop his head upon his bosom "to muse and brood and live again in memory with those old faces of his infancy, heaped over with a mound of grass." A favorite bird is the bobolink; and from the St. Lawrence to Terra del Fuego he is a welcome visitor. Not a child but hails his coming with delight, and with some queer jargon or Babylonish dialect mimics his metallic melody.—*Putnam's Magazine*.

AN ICE PRESERVATIVE.—We clip the following simple recipe for keeping ice-water, a trial of which will cost comparatively nothing:

"Place between two sheets of paper (newspaper will answer; thick brown is better;) a layer of cotton batting about half an inch in thickness, fasten the ends of paper and batting together, forming a circle, then sew or paste a crown over one end, making a box the shape of a stove-pipe hat, minus the rim. Place this over an ordinary pitcher filled with ice-water, making it deep enough to rest on the table, so as to exclude the air, and the reader will be astonished at the length of time his ice will keep and the water remain cold after the ice is melted."

The Royal Party at Frogmore.

Frogmore is within the Royal Park at Windsor. The palace is a plain, country residence, with nothing to distinguish it from a thousand others in England. The site is superb and the surroundings interesting. Not far from the mansion is the mausoleum of the Prince Consort—a tall, square, brick tower, with pointed roof. No one is allowed to visit the tomb except on the anniversary of the Prince's death. Then the trades-people of Windsor are allowed to visit the shrine. The common people loved the prince very much, and they had reason to, for he was a kind master. In a portion of the royal grounds Prince Albert laid out his model farm. He erected superb buildings, and introduced all modern experiments, and gave the country the benefit of his experience. When the sharp eye and vigilant hand of the prince lay cold in death, the beauty of the farm began to decline. I was there on Thursday, and the stillness of Pompeii reigns over the place. The exquisitely arranged quadrangular buildings were deserted. One side, where the fifty-one dairy cows are kept, was in prime order. The rest showed neglect. A few pigs sporting in a pen exhibited all the life to be seen on the farm. The royal dairy remains alone in active use. The building occupied as a dairy, resembles a lodge at the gate of a palace. The interior is exquisitely fitted up. The walls and floor are of the finest china. The royal arms and medallion likenesses of the entire royal family surround the room. Fountains play, and an ingenious arrangement has been made for ventilation and to keep the temperature even, at all times a day and all seasons of the year. The presiding genius of this establishment is a Welch woman, scrupulously neat in the peculiar garb of her country, the conspicuous part of which was a low-crowned, peculiar shaped hat. The milk used on the royal table at the castle and in London, is obtained from this dairy. The pans, about fifty in number, are of china and of a peculiar shape, made from models furnished by Prince Albert. The milk from the twelve Alderney cows is kept by itself for the Queen's special use. From this the butter is made that is placed on the royal table. It follows the queen wherever she goes. Daily, the couriers from Downing street, start with their box of dispatches for Osborne, Balmoral, London, or wherever her majesty may be. Just as regular starts the messenger with the royal butter to find the queen. At Osborne and Balmoral the queen has her own dairy for milk, but the butter she must have from Frogmore. I saw rolls of golden butter ready to be sent off. It was very pleasant to the eye and sweet to the tooth. The churn used at Frogmore is a metallic one, in shape like a barrel, and rotary. Pans, pails and cans, all bore the royal monogram. "V. R." The dairy is called the model dairy. But no one without a royal revenue could afford such an arrangement. Conspicuous in the room in gold letters is the announcement that that dairy was constructed by Prince Albert, "in the 21st year of her majesty's reign."—*Bost. Jour.*

Here is a bit of French philosophy. It is set down to the credit of Alexander Dumas, fils: "Walk two hours every day. Sleep seven hours every night. Get up as soon as you wake. Speak only when necessary, and say only half what you think. Don't write anything but what you can sign. Think neither too much nor too little of money; it's a good servant but a bad master. Beware of women before you are twenty. Avoid them after you are forty."

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316 & 318 NORTH THIRD STREET.

ASSETS, . . 229,773.38.

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The MOUND CITY has just completed its first Policy Year, and
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Its business has been done at a remarkably low expense, and
SAFETY has been the prominent feature of its management.

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Its Policies are Exceedingly Liberal.

ALL KINDS OF POLICIES ARE

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THIRTY Days ALLOWED in the PAYMENT OF PREMIUMS.
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Parlor Steam Engine.

Made entirely of Metal; Boiler and Furnace complete; will work for hours, if supplied with water, &c.; free from danger; a child can work it. Sent free with instructions for \$1; three for \$2.50.

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jy31-3m

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Pure Chester White Pigs,
BIGGER AND FINER to be had than elsewhere, and for less money, of H. D. OLMSTEAD,
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**THE BUCKEYE
HOG TAMER.**

No More Trouble from Rooting. Rings, Pins, and other Jewelry Superseded. A Perfect Implement. Hogs do no Mischief. A Great Saving in Food.

No efforts have been made to introduce the "Buckeye Hog Tamer," (invented by Samuel F. Hair, of Ohio, in 1864,) to the Public—yet it has enjoyed a very large sale, and is pronounced "a perfect instrument" by all who have used it, superseding all other contrivances and inventions now before the public.

David Magee, the celebrated hog stock raiser of Butler Co., Ohio, says: "The Buckeye Hog Tamer supersedes the use of rings, the jack knife and every other invention I have seen to prevent hogs from rooting. I recommend it to every farmer who raises hogs. It is invaluable—and I would not be without it for many times its price. It is a perfect instrument. I do not think it can be improved."

John McFarland, of Illinois, says, in the Western Rural, "I regard the Buckeye as a perfect instrument of its kind. The leverage is powerful, and never fails to cut through. I would advise all farmers to get it."

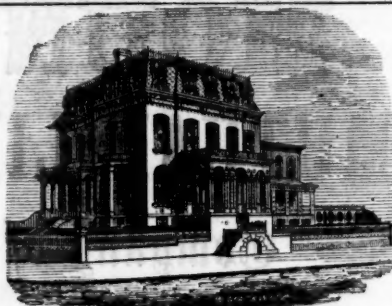
D. B. Curran, of Joliet, under date of August 21st, 1867, says: "I have used the Buckeye Hog Tamer for nearly three years, on hogs and pigs of all sizes. I used but one knife on all. This spring I had forty small pigs; I could not keep them off the corn field; they rooted up my corn by the row. I applied to these the Hog Tamer. After this they would run through the corn field, but rooted no more. It requires but little skill to use it, and but little power on account of the powerful leverage and lance-shaped knives. Another great advantage in this Hog Tamer is the slot through which the knife passes after cutting through the rooter, and therefore cannot fail to cut through."

Cut your pigs' noses in the fall, and you will winter them on one-fourth less feed, because they will be kept quiet—and they will be in better condition in the spring.

Sent by express (charges prepaid), with full directions for use, on receipt of retail price, \$2.50 each. Address, ISAAC C. MYERS, Rural World Office, St. Louis, Mo.

A Forty Acre Farm for Sale.

This Farm is situated on the Iron Mountain Railroad, 30 miles from St. Louis, three miles from Horine Station. Improvements as follows: One good log-house, containing 4 rooms, a stable, two corn cribs, all new and in good condition. Also, a good wagon shed, cow house, chicken house, and smoke house. 25 acres of the land are under cultivation, and 35 are under fence. There are also 250 apple trees, some pear and peach trees, mostly in bearing. On the premises there is also a never failing spring, abundance of water for cattle, &c. Price \$2000, part cash, balance to be paid as agreed on. For further particulars, Address, HIRAM HOW, Horine Station, I. M. R. R., Mo., or any person desiring to see the farm can obtain directions how to find it by inquiring at Horine Station.



ALLEN & WATSON,
PLASTIC SLATE ROOFERS,
And Manufacturers of Improved Plastic Slate Roofing, and Plastic Slate Double Felt. The best Felt and the cheapest and best Roofing in the market. Waterproof and Fireproof. Orders solicited.—Send for circulars. Roofs repaired on short notice.
jy17-9t-eow Office, 513 Olive St., St. Louis, Mo.

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ALL KINDS.
FIFTY MILLION Hedge Plants.

On the Market, at the Lowest Rates.
Agents Wanted Everywhere.
Write and get our terms. Address,
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1308 and 1310 Franklin Avenue.

PRICE LIST.	
Banner Mills XXXX, per barrel,	\$ 9 50
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Rye flour per barrel,	8 00
Oat meal, fine, medium and coarse, per barrel,	14 00
Cracked wheat per barrel,	9 00
Graham flour per barrel,	9 50
Pearl barley per pound,	12 1/2
Hominy per barrel,	6 50
Corn grits per barrel,	6 50
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Ground up corn, for feed, per 100 lbs.,	1 40
Bran, for feed, per 100 lbs.,	90
Shipstuffs, for feed, per 100 lbs.,	1 25
Wheat screenings, for feed, per 100 lbs.,	1 00
Sold and delivered in quantities to suit consumers.	
WM. FREUDENAU.	

**CHAMPION WEEDER AND
HORSE HOE CULTIVATOR.**

PATENTED FEB. 1868.
This implement combines all the advantages of its predecessors. Patented and manufactured by a practical machinist and farmer. Made of the very best material, under the supervision of the inventor, at the low price of \$15 for No. 1, and \$7 for No. 3. We confidently recommend it as an invaluable implement for the farm, vineyard, nursery, small fruit plantation and garden. It is so constructed that it runs steady, can be widened from ten inches to three feet, so as to clean out a row every furrow; can be regulated from one inch to any depth desired. Handles are arranged so as to be adjusted to the height of the driver. Any boy that can guide a horse, can do good work. These implements combine so many practical points, that nothing yet in the market can compete successfully with them. Made at the Saint Louis Agricultural Works of UDE & GRIMM; where are made all grades of IMPROVED STEEL FLOWS.

ALSO,
Atwood's National Gang Plow,
PATENTED 1865.
Pronounced by those using them as superior to all of this kind of implement yet out.

GEO. M. WYETH,
No. 1511 CARR STREET,
Sole Agent for Manufacturers and Territorial Rights.
For sale by the Principal Agricultural Implement Dealers.
may1

TAPPAHANNOCK WHEAT.

Those who have not yet obtained seed of this superior, early, white wheat, can have an opportunity of doing so now. My crop this year is extra fine, and entirely free from all foreign seed. I have allowed no other wheat to grow on my farm for six years, and have a machine of my own that threshes no other wheat. I intend to thresh immediately, and those who wish to obtain it of me had better send in their orders at once. Orders will be filled in the order received. My price this year is \$2 per bushel, nett.—Cash must accompany orders, or by express C. O. D. Sacks furnished at cost when desired.
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M. D. HELTZELL & CO.,
COMMISSION MERCHANTS, AND MANUFACTURERS
AGENTS FOR THE SALE OF
Land Plaster,
Raw Bone, Superphosphate of Lime
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Dealers in LIME, CEMENT, PLASTER PARIS, Hair, White Sand, Marble Dust, Fire Brick, Sewer and Drain Pipe, &c.
No. 807 North 2d Street, ST. LOUIS, MO.
Liberal Cash Advances made on Consignments of
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JAS. A. STORM & CO.,
Nos. 14 & 16 Second Street,
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Produce & Commission Merchants
And Dealers in Fruits and Vegetables.
Pay special attention to selling and shipping FRUIT on Commission.
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ITALIAN QUEENS---Warranted
PURE, sent to any express office in the country.
Also, a few choice Colonies of Italian Bees.
Apply to ELLEN S. TUPPER,
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OAKLAND HERD---PURE BRED
Short Horns, of the most valuable strains of blood at all times for sale. Also,
BERKSHIRE PIGS.
Catalogues furnished upon application.
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HEALING
SPRING WATERS.**

These Waters are performing the most wonderful cures yet known in the shortest time, and are UNRIVALLED for all diseases of the blood and skin; cure all scrofulous affections, including Erysipelas, Salt Rheum, Tumors, Ulcerous and Cancerous Affections; also, Rheumatism, Dyspepsia, Constipation, Diarrhoea, Liver Complaint, Uterine, Kidney and Urinary Diseases; Gravel, Diabetes, Piles, Female Weakness, General Debility, Catarrh, Incipient Consumption, Neuralgia, AND EFFECTUAL WHENEVER THE SYSTEM REQUIRES PURIFYING, REGULATING AND BUILDING UP. Hundreds of Testimonials of cures. SEND FOR PAMPHLET.
Address, GRAYS & CLARK,
may8-13t eow MIDDLETOWN, VERMONT.

Turkish Baths.
Prof. Wm. Roberson's
TONSORIAL PALACE,
410 Market Street, opposite Court House,
ST. LOUIS, MO.

Also, Proprietor of the Celebrated
TURKISH BATHS.
If you wish to enjoy a rare luxury; if you wish to be cleaner than you ever were before; if you wish to have a healthy, active, beautiful skin; if you wish to purify your blood; if you wish to rid yourself of colds, rheumatism, neuralgia, etc.; if you wish to preserve your health; if you wish to gratify your curiosity:
Try a Turkish Bath!
You will be sure to like it and to come again.
410 Market Street, St. Louis, Mo.

THE GREAT BENEFACTOR.



The Home Washing Machine!

WARRANTED THE BEST WASHER EXTANT. and the only machine that washes thoroughly all kinds of fabric, from the finest laces to the coarsest bedding, without injury. Will wash 500 collars and 50 shirts in one hour. Any one purchasing a machine may return the same and money will be refunded if it does not work as represented. State and County Agents desired. Address, HOME MANUFACTURING COMPANY, 818 North Fourth St., and 821 Broadway, St. Louis, Mo.

SAMUEL CUPPLES, President, [Jes-tf] Jos. B. WILDE, Secretary.

WILLIAM MILLER, JR.,

Importer and Breeder of

COTSWOLD SHEEP.

Post-office address, ATHA, Canada West.

feb13-1y

TURNIP SEED BY MAIL.

J. M. THORBURN & CO.,

15 John Street, New York,

OFFER FRESH AND GENUINE

Ruta Raga, Russia or Swedish Turnip, American grown, and particularly choice stock, 75 cts. lb. Large Yellow French, very superior, large and of excellent feeding properties; can be sown a month later than Ruta Raga, \$1 lb. Red Top Strap Leaf; this old established variety is the best for late sowing, 75 cts. lb.

ALSO,

Early Dutch, \$1 lb. German Teltow, \$2 lb. Cow Horn, \$1 lb. White Norfolk, 75 cts. lb. White Strap Leaf Flat, \$1 lb. White Flat or Globe, 75 cts. lb. Long White Tankard, 75 cts. lb. Yellow Stone, \$1 lb. Yellow Aberdeen, 75 cts. lb. White Ruta Raga, 75 cts. lb.

AND OTHERS TOO NUMEROUS TO MENTION.

We also offer for late summer sowing: Corn Salad, 15 cts. oz. \$1.25 lb. Green Curled Endive, 30 cts. oz. \$3.00 lb. Green Curled Scotch Kale, 15 cts. oz. \$1.50 lb. Brown Dutch and Hardy Green Lettuce, 30 cts. oz. \$3.00 lb. Scarlet Chinese Winter Radish, 20 cts. oz. \$2.00 lb. Round & Prickly Spinach, 10 cts. oz. 60 cts. lb.

If ordered by mail, add 8 cents per lb for postage. Catalogues on application.

J. M. THORBURN & CO.,

15 John Street, New York.

Hedge Plants Grown in Missouri.

93 Bushels Osage Orange Seed planted. I will ship, freight prepaid, to any railroad station in North Missouri, GOOD HEDGE PLANTS at \$2.50 per 1000, next fall—or \$8 next spring. Printed directions furnished. CHAS. PATTERSON, may22-6m Kirkville, Adair Co., Mo.

For Sale, a Thoroughbred Young

AYRSHIRE BULL, price \$200. For pedigree and particulars, apply to or address, WM. MUIR, at the office of Colman's Rural World, St. Louis, Mo.

THE HOWE

MACHINE COMPANY'S

Sewing Machines

FOR

FAMILIES AND MANUFACTURERS.

THE GREAT PRIZE,

THE ONLY

CROSS OF THE LEGION OF HONOR AND GOLD MEDAL,

AWARDED TO AMERICAN SEWING MACHINES at the Paris Exposition of 1867, OVER EIGHTY-TWO COMPETITORS, as per Imperial Decree, published in the "Moniteur Universel" (Official Journal of the French Empire), Tuesday, 2d July, 1867.

The Lock Stitch invented by MR. HOWE, and made on this Machine, is the most popular and durable; is alike on both sides, and will NEITHER RIP NOR RAVEL, and all Sewing Machines are subject to the principle invented by him.

A Machine was needed possessing SIMPLICITY and DURABILITY, and adapted to a great range of work; one easily understood and comprehended by all. To produce such a Machine has been the study of ELIAS HOWE, JR., who gave to the world THE FIRST SEWING MACHINE, more than twenty years ago; and now we offer his last production—a Machine embracing all essential qualities, and pronounced

THE BEST MACHINE IN THE WORLD.

Persons from a distance can order a Machine with perfect confidence of being able to operate it in a few hours successfully, by the aid of the printed instructions that accompany each Machine. Drafts or current funds must accompany the order. Machines may be ordered by Express, also to collect on delivery, if the purchaser prefers. We advise shipping by Express, as the most convenient and expeditious way.

The demand for this

New and Improved Machine

Is unprecedented in the history of Sewing Machines. In all the principal towns where Agencies are not already established, we desire responsible and energetic parties as Agents. Many places are of sufficient importance to warrant persons in making it their exclusive business.

Send for Circular and Samples.

COCHRANE & BROWN,

General Agents

For Missouri, Kansas, Arkansas, Nebraska, and the Territories of Colorado and Utah.

No. 425 North Fifth Street, cor. St. Charles St., may22-3m ST. LOUIS, MO.

WANTED--AGENTS--\$75 to \$200

per month, everywhere, male and female, to introduce the GENUINE IMPROVED COMMON SENSE FAMILY SEWING MACHINE. This Machine will stitch, hem, fell, tuck, quilt, cord, bind, braid and embroider in a most superior manner. Price only \$18. Fully warranted for five years. We will pay \$1000 for any machine that will sew a stronger, more beautiful, or more elastic seam than ours. It makes the "Elastic Lock Stitch." Every second stitch can be cut, and still the cloth cannot be pulled apart without tearing it. We pay Agents from \$75 to \$200 per month and expenses, or a commission from which twice that amount can be made. Address, SECOMB & CO., PITTSBURGH, PA., BOSTON, MASS., or ST. LOUIS, MO. CAUTION—Do not be imposed upon by other parties palming off worthless cast-iron machines, under the same name or otherwise. Ours is the only genuine and really practical cheap machine manufactured. may15-13t

THOROUGH-BRED & TROTTER HORSES

Short-Horn and Alderney Cattle,

And South-Down Sheep,

FOR SALE AT

Woodburn Farm, Spring Station, Woodford Co. Ky. feb27-1y] A. J. ALEXANDER.

FARM FOR SALE.

In Franklin County Missouri. It consists of \$36 acres, 70 under cultivation; about 300 fruit trees, of peach, apple and cherry, bearing. It is well adapted to fruit raising, being in a high, healthy location, 5 miles south of Calvy Station, on the S. W. Branch of the P. R. R., 40 miles from St. Louis. There is a comfortable house, stables, &c. Could be divided so as to make 3 good farms. There is a post-office and store 1 mile from it. I will take \$3,000 for it, one-half down the rest in one and two years. I will make a liberal discount for all cash. Address, Thos. Robinson, Horine Station, I.M. R. R., Mo. June6-3m

BERKSHIRE PIGS.

A few choice Berkshire pigs, three months old, for sale at \$25 per pair. Also a few pair of Berkshire and Chester Cross, Very fine pigs, at \$15 per pair. Address, E. A. RIEHL & BRO., Alton, Illinois: aug15-1y.



Fairbank's Standard

SCALES,

OF ALL SIZES.

Fairbanks, Greenleaf & Co.,

aug15-1y. 209 Market Street, St. Louis, Mo.

CRESYLIC & CARBOLIC COMPOUNDS.

Cresylic Plant Protector,

For the protection of trees, plants, etc., from insects. In cans, 1, 3 and 5 pounds.

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A safe and certain cure for scab. Will also destroy vermin on sheep; increase the quantity and improve the quality of the wool.

Cresylic Ointment

Destroys screw worm, cures foot-rot, and is a healing wash for galls and sores.

Carbolic Disinfecting Soap

Will destroy vermin on animals and protect them from flies, etc.

Cresylic Medicated Toilet Soap

Heals chapped hands, cutaneous eruptions, piles, etc.

Cresylic Salt Rheum Soap

Cures salt rheum and similar diseases.

Cresylic Laundry Soap,

For washing and disinfecting clothing, bedding, rooms, etc.

Also, ROOFING PITCH and FELT, CARBOLIC ACID, Etc.

Send for circulars and price lists to ST. LOUIS COAL TAR CO., 324 North 3d St., Saint Louis, Mo. jan30-6m

WANTED--AGENTS--TO SELL THE AMERICAN KNITTING MACHINE.

Price \$25. The simplest, cheapest and best Knitting Machine ever invented. Will knit 20,000 stitches per minute. Liberal inducements to Agents. Address AMERICAN KNITTING MACHINE CO., Boston, Mass., or St. Louis, Mo. may15-13t

Fall 1869. Spring, 1870.

Western Orchards from Western Nurseries.

PIKE COUNTY NURSERIES,

Permanently established and reliable.

STARK, BARNETT & CO., Proprietors,

LOUISIANA, MISSOURI,

Offer for sale the following fall and spring, the largest and best assortment of Fruit Trees, Grape Vines, Small Fruits, Hedge Plants, &c., ever offered to Western planters. Our life-long experience in the Nursery Business and Fruit Growing combined, enable us to understand the wants of the Western Fruit Grower. We respectfully invite all who wish to purchase NURSERY STOCK, in large or small quantities to correspond with us; or if practicable call and examine our stock and prices. Our prices will be as low as any other first-class, reliable Nursery. Special inducements to Nurserymen and large dealers, and liberal terms to reliable Local Agents, who propose to deal with their neighbors. All stock warranted to be as represented. Shipping facilities unsurpassed. Information given and Catalogues mailed free to all applicants. Address, STARK, BARNETT & CO., Louisiana, Pike Co., Mo. jyl7-1y

THE LIFE ASSOCIATION OF AMERICA.

The Special attention of FARMERS, STOCK RAISERS, FRUIT GROWERS, AND AGRICULTURISTS GENERALLY,

Is invited to the following statement of facts:

The LIFE ASSOCIATION OF AMERICA, was established one year ago, its design being to change "the current of Life Insurance from the East to the West and South, so as to stop the ruinous drain upon the finances of those sections, which is caused at present by the extensive operations of Eastern Life Insurance Companies."

These Eastern Companies now hold 200,000,000 of DOLLARS of Money, for which the people of the West and South have nothing but their promises to pay at some uncertain time in the distant future. Shall the fruits of our industrious toil, in the FIELD, at the ANVIL, in the COUNTING HOUSE, in the MILL, in the WORKSHOP—in short, in all the departments of HOME INDUSTRY, be poured into the lap of Eastern Capitalists whose interests are so foreign to our own? Should we continue to do this, and keep up the Policies of Eastern Companies now in force, we shall have paid them more than enough to

LIQUIDATE THE ENTIRE PUBLIC DEBT!!

The plan of this Association is to establish departments in each State, controlled by leading citizens through whom the money paid for Life Insurance is invested in the locality where it is realized, when undoubted Real Estate security can be obtained. Farmers can thus effect loans which will be PERMANENT, thus relieving them from the embarrassments entailed by short crops, and avoid the annoyance of sales under deeds of trust—calamities which have often destroyed many a worthy, hardworking farmer.

With heavy taxes and high wages for labor which is uncertain, precarious difficult to get and poor at that, our Farmers cannot afford to pay these Eastern Companies to handle their money and do their insuring, which the Life Association of America is able to do and at LESS RATES.

ENCOURAGE HOME ENTERPRISE!

Charity begins at home. Our agriculturists require all their surplus to purchase farming machinery, improve lands, enlarge their estates and improve their condition generally. Can they do it by paying millions of their earnings every year to foreign capitalists?

In order to develop our lands and utilize our resources, we must have the handling of the fruits of our genius and industry ourselves.

The success of the Life Association of America is unparalleled. It is in operation less than a year, and its present annual income about one million of dollars. It is purely mutual. All its policies are non-forfeiting. It insures on all the popular plans practiced by sound companies, and because of the high rates of interest it gets on its investments, its rates of premium are lower, and its dividends will be much larger than those of other companies. Build up Home Institutions.

LIFE ASSOCIATION OF AMERICA.

Losses by Death of Policy Holders, : : \$20,000.00

See receipts below:

LOUISIANA, MO., May 5, 1869.
Received of the LIFE ASSOCIATION OF AMERICA, Ten Thousand Dollars (\$10,000) in full for Policy No. 504, issued to E. B. Rule, for the benefit of Margaret J. Rule and heirs of the body of E. B. Rule.

Signed, MARGARET J. RULE, widow of E. B. Rule, deceased.

Signed, J. B. BURBRIDGE, } Guardians of Children
J. T. RULE, } of E. B. Rule, deceased.

OMAHA, NEB., May 1, 1869.
Received of the LIFE ASSOCIATION OF AMERICA, the sum of Ten Thousand Dollars (\$10,000), being in full for loss under Policy No. 410 of the Life Association of America, on the life of Samuel A. Mogeath.

Signed, JAS. G. MEGEATH, } Adm'r of S. A.
ADDISON COCHRAN, } Mogeath, dec'd.

NOTE—It is well to add that the INTEREST MONEY alone has been sufficient to pay these losses, and leave a handsome surplus besides. This is mentioned merely as an evidence of our success during the FIRST ELEVEN MONTHS. Old Companies use this fact as an ARGUMENT TO PROVE THEIR SOUNDNESS, AFTER DOING BUSINESS 15 or 20 years.

Why Farmers should Insure in this Association.

Because as Producers of Capital they are entitled to the use of the results of their labors—a right secured to them by the plan and system of this Institution.

FARMERS SHOULD, ABOVE ALL OTHERS, INSURE THEIR LIVES, AND PROVIDE for future contingencies. The litigations incident to a new country, by which heirs and administrators become involved in law suits, touching boundaries, titles, &c., not unfrequently exhaust the fruits of the labor of a long life in their expensive cost, and drive widows and orphans from their cherished homesteads, around which so many fond memories cluster. A Policy of Insurance covers every pecuniary contingency, and offers security and provision for the fatherless and the widow.

Farmers should insure, because their opportunities for making safe investments are few, on account of their seclusion and limited intercourse with financial circles. Life Insurance presents a safe and profitable investment, considering it as a FINANCIAL measure, besides providing for the future pecuniary welfare of themselves and their families.

FARMERS and others visiting SAINT LOUIS, are invited to call at our office,

No. 307 North Fifth Street.

Manuals and Circulars giving complete statements of details, rate tables, &c., furnished by applying at this office.

JOHN J. ROE, PRESIDENT.

J. P. THOMPSON, SECRETARY.

C. R. GRIFFING, General Manager for the State of Missouri.

EVERY FARMER HIS OWN MILLER.

SEE ADVERTISEMENT OF
The DIAMOND MILL COMPANY,
CINCINNATI, OHIO,
On page 76, of this paper.

FIRE! FIRE!! FIRE!!! The New Babcock Patent Fire Extinguisher,



By a simple process generates carbonic acid gas, and throws it 40 to 50 feet on to fire, extinguishing it in a moment, even if composed of the most combustible materials. Its control over oils and chemicals is complete. A boy can work it; it never gets out of order, and is perfectly harmless. Every Farmer should have one—for if his house or barn should take fire, he can put it out with this in a few minutes.

Send for Circular, OR CALL AND EXAMINE.

The Great Western Fire Extinguisher Co., 525 Washington Ave., St. Louis, Mo.

JOHN S. McCUNE, President.
LOGAN D. DAMERON, Vice-President.
H. M. BLOSSOM, Secretary.

FRUIT COMMISSION HOUSE. COLMAN & SANDERS,

612 North Fifth Street, ST. LOUIS, MO.,

Will receive from the Growers all kinds of Fruit, and sell the same at the best rates obtainable in the market. Their Fruit store being situated on Fifth Street nearly opposite the splendid Union Market, gives them unusual facilities for selling fruits at best rates. **Strawberry Boxes, Crates and Drawers, Peach and Grape Boxes, &c.,** Kept on hand for the supply of our customers, and sold at low rates.

KNEE-SPRUNG HORSES

PERMANENTLY CURED, without cost or trouble. Address, W. T. BAKER, Sentinel Office, Waterford, New York. **RECIPE, \$1.00.** jy-3m

Colman's Rural World,

DEVOTED TO

Agriculture, Horticulture, Rural Economy, &c., &c.

Published Weekly, at 612 North Fifth Street, St. Louis, Missouri,

In a neat quarto form of 16 pages, on fine book paper, forming two volumes a year of 416 pages each, beginning with January and July. **TERMS—Two DOLLARS a year in advance.** For a club of 5 new subscribers and \$10, a copy Free one year. Or for a club of 8 old subscribers and \$16, a copy Free one year.

ADVERTISING RATES—25 cents per line each insertion, inside pages; 35 cents per line last page. Double price for unusual display. Sixty cents per line for special notices. Nothing inserted for less than One Dollar.

The circulation of COLMAN'S RURAL WORLD is now, by far, the largest of any paper of its class published in the Mississippi Valley (having been published for 21 years past in St. Louis), and offers to Stock Breeders, Nurserymen, Seedsmen, Florists and Implement Dealers and Manufacturers, the very best medium for reaching the live, wide-awake, enterprising classes interested in such articles as are usually advertised.